MONTANA HIGHWAY DEPARTMENT

biennial report

1964-66

STATE of MONTANA

STATE HIGHWAY COMMISSION

HELENA, MONTANA

BIENNIAL REPORT

FISCAL PERIOD

July 1, 1964 to June 30, 1966

BIENNIAL REPORT

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MONTANA HIGHWAY COMMISSION

HELENA, MONTANA

IN REPLY REFER TO:

November 1, 1966

The Honorable Tim Babcock
Governor of Montana, and
The Legislative Assembly
of the State of Montana

Greetings:

Pursuant to the provisions of Section 2, Chapter 98, Session Laws of Montana, 1959 we have the honor to submit to you our biennial report covering the fiscal period beginning July 1, 1964 and ending June 30, 1966.

Respectfully submitted

STATE HIGHWAY COMMISSION

By Alex Blewett

Alex Blewett, Chairman

STATE HIGHWAY COMMISSION

HELENA, MONTANA

November 1, 1966

The Honorable Tim Babcock, Governor of Montana
The Legislative Assembly of the State of Montana
The Highway User

Greetings:

The State Highway Commission is the five-member board responsible for the administration of Montana's state highway system. Highway Commissioners are appointed by the Governor with the consent of the Senate to four-year terms of office. The State is divided into five districts with one Commissioner being appointed from each district. The law specifies that no more than three Commissioners may be members of the same political party. During the past biennium, new Commissioners were appointed for Districts 2, 3 and 5.

The Commission establishes general policy, reviews and decides matters of special importance and approves construction programs, allocation of construction funds, budgets, and other matters which require their attention. The Commissioners also meet individually with persons and groups within their districts in order to discuss highway matters.

Meetings are held at least once each month in the Montana Highway Department Building at the main office in Helena for transacting of necessary business and meeting with delegations and individual citizens. The State Highway Engineer discusses departmental business with the Commission at these sessions, and formal action taken by the Commission is recorded in the minutes where it becomes a matter of public record. Commission meetings are held under the "open door" policy and members of the press and people are invited to attend, with the exception of sessions dealing with personnel matters.

The State Highway Engineer is the chief administrative officer of the department and administers the affairs of the department under general policies established by the Commission. The complex operations of the department are divided among various headquarters divisions and sections and field districts and divisions. A reorganization of the department was accomplished in 1965 in accordance with the organization chart shown on page 14 of this report.

A new Montana Highway Code was prepared by the Montana Law School of the University of Montana for the purpose of revising and bringing up to date existing laws which were conflicting or had become obsolete in many instances. This new code was enacted as Chapter 197 of the Laws of Montana, 39th Session, 1965, to become effective December 31, 1966.

The State Highway System in Montana is coincidental with the Federal Aid Highway System and all state highways are eligible for construction or reconstruction with Federal participating funds. Federal funds may not be utilized, however, for other than construction functions, and all cost of administration, maintenance and other functions must be borne by the State. The actual mileage of highways, classified according to the type of surface that existed on December 31, 1965, is shown on Page 10. Mileages under other governmental jurisdiction are shown on Page 10.

Federal funds for construction of State highways are apportioned to the states on the basis of separate formulas for Interstate, Primary, Secondary and Urban funds. The Federal money is derived from Federal highway user taxes imposed on gasoline, tires, vehicles, and other products used in the manufacture, operation and maintenance of motor vehicles. Federal funds are administered by the Bureau of Public Roads under Federal laws and administrative regulations. In order to be eligible for Federal funds, all matters concerning route designations, location, engineering and right-of-way must be approved by the Bureau of Public Roads.

State funds for the matching of Federal Aid are divided among the various highway systems and distributed to the financial districts, counties and cities in accordance with State law. Apportionment percentages are shown on Page 11 of this report.

One of the major responsibilities of the Commission is the review of the annual operating budget which is submitted to the Commission by the State Highway Engineer. In previous years, a single budget has been prepared for the entire department; however, a new budgetary procedure was initiated during the biennium which provides for budgetary control for the individual districts, divisions and sections. After approval by the State Highway Commission, the budget is submitted to the State Budget Director for his review and submission to the Governor and the Legislature.

The Commission is happy to report that great progress has been made during the past biennium in placing under contract many new highway construction projects which have succeeded in reducing the backlog of State and Federal Interstate funds which were accumulated in previous years under the expanded program until such time as the necessary surveys could be made, plans prepared, and right-of-way acquired for final contract award.

During the past biennium there has been a moderate increase in the cost of maintaining State highways. Part of this increase is attributable to additional miles of highway being placed on the system, the assuming of responsibility for maintaining certain arterial Secondary highways which previously were the responsibility of the counties, and the additional cost imposed by maintaining new Interstate highways which must be maintained in many instances in addition to the existing highways which they replace and which also have much greater surface widths, signing, traffic control devices, and other facilities for the protection of traffic.

The Federal Aid Highway Act of 1966 specifies that all Interstate System highways throughout the nation must be constructed to 4-lane standards. This action will result in a greatly increased highway construction program, as well as an increase in maintenance costs applying to the much wider highways and the extensive mileage of frontage roads which are required to conform to controlled access requirements of the Interstate System.

Respectfully submitted.

ALEX BLEWETT, Chairman
Great Falls

S. N. HALVORSON, Vice-Chairman
Kalispell

JOSEPH M. NASS, Member
Poplar

ARNOLD M. SWANSON, Member
Bozeman

DALLAS W. VAN DELINDER, Member
Billings

ALEX BLEWETT
ARNOLD SWANSON

GOV. TIM BABCOCK
J. M. NASS

S. N. HALVORSON
D. W. VAN DELINDER

CORRECTION

The cost of construction of the completed Interstate system as of June 30, 1966, (paragraph #3, page 6) is in error. Listed as $195,419,961 for 369 miles of completed Interstate highway, the corrected figure should read $117,410,872 for 369 miles. This corrected figure shows a cost per mile for construction of $318,186.00

vidual division or section in the department would be required to prepare and operate under a budget. After review by a Budget Committee, the individual budgets have been consolidated into an over-all budget for the department. This action provides much better budgetary control over the operations of the department and the individual divisions and sections.

NEW DEVELOPMENTS

The Federal Aid Highway Act of 1966 specified that the entire Interstate System throughout the nation should be constructed to four-lane standards by 1973. In order to complete the system by this date, it will be necessary that the proper financing be arranged by 1972. Since Montana had about 550 miles of planned 2-lane Interstate Highway prior to this action, it is evident that there will be a greatly increased construction program in the years between now and 1973 in order to reconstruct the present 2-lane sections to 4-lane standards and also to construct all future projects to such standards.

During the past biennium, Congress also enacted a Highway Beautification Act which provides for the elimination of signboards, junkyards, garbage dumps, and other unsightly features from the area adjacent to our Interstate and Primary highways. This act provides that 75% of the cost of eliminating these facilities will be paid from Federal funds with the State being required to provide the remaining 25% of the total cost. To assure that proper action is taken toward highway beautification, the act provides that 10% of the Federal Aid available to a state will be withheld for failure to comply with the signboard provisions and an additional 10% of the Federal Aid will be withheld for failure to comply with the junkyard provisions. Under current Federal Aid apportionments, the State of Montana can lose $5 million in Federal Aid for each of these programs, and when consideration is given to future Federal Aid apportionments, which must be made to assure completion of the Interstate System by 1973, the annual loss in Federal Aid could easily amount to $10 million per year for each of these programs. The Highway Beautification Act also provides Federal funds without State matching requirements for the purpose of acquiring scenic strips adjacent to our highways, landscaping the highways, constructing rest areas, and improving historical points or other sites of interest adjacent to our highways. The State Highway Commission expects to take full advantage of these funds.

The Federal Highway Safety Act was also enacted recently which requires that the State initiate or expand programs for improving highway safety. The programs include driver education, testing, examination, and licensing; vehicle inspection; accident investigation and maintenance of detailed accident reports and similar programs. Failure to comply with these programs will also result in a loss of 10% of our Federal Aid apportionments as described for the highway beautification programs.

In an effort to improve the highway safety situation, we have also embarked recently on a highway spot improvement program which involves the reconstruction of short sections of highway which have proven to be accident prone.

OUTLOOK

At the end of the current biennium, the accumulated backlog of Federal Aid will be eliminated, and the State will be in a position to match the current Federal Aid apportionments. The Federal Aid apportionments and the State matching funds under these conditions will provide for highway construction programs ranging from about $60 million to $70 million per year. The construction program will be changed radically, however, as the Federal Aid apportionments are increased to provide sufficient money to complete the Interstate System by 1973. To complete this system, Federal Aid will have to be provided in amounts equal to $414,628,475 for the five years extending from fiscal year 1968 to fiscal year 1972, inclusive. State matching funds required for this program will amount to $87,585,691. Unless additional revenue is provided to the State Highway Commission beyond the amounts expected to be derived from current sources and at current rates, the deficit of State matching funds during this period will amount to $21,043,715.

In order to eliminate this deficit in State funds, $4,200,000 per year in new revenue will be required for the five-year period extending from fiscal year 1968 to fiscal year 1972 (July 1, 1967 to June 30, 1972).

Consideration must also be given to the possibility that Congress may find it necessary to extend the completion date for the Interstate System beyond the presently established date of 1973 in order to allow sufficient time for states such as Montana to accomplish the huge construction program involved in converting present 2-lane sections of highway to the 4-lane standards. If the program is extended for one additional year, the requirements for new revenue will be reduced to $3,000,000 per year in place of the previously reported $4,200,000 per year. Extension of the program for two additional years beyond 1973 will reduce the requirements for additional revenue to $2,200,000 per year.

In projecting future financial needs, consideration has been given to normal increases in highway costs, other than those related to construction, to compensate for expected increases in the cost of wages, salaries, equipment and supplies.

Early consideration should be given to the legislative action that will be necessary to provide the additional State highway revenue that will be required to assure completion of the Interstate System construction program as well as to provide the necessary State matching funds which will be required to carry on the Primary, Secondary and Urban highway programs.

It will also be necessary that full consideration be given to the enactment of State legislation which will be required to assure that State law conforms to the requirements of the Federal Highway Beautification Act and the Federal Highway Safety Act. Failure to comply with the Federal law will result in the loss of up to 30% of the future Federal Aid apportionments to this state.

In summary, the enactment of the required State legislation will assure that our future highways will be more beautiful, safer, and more economical to the traveler. After the Interstate System is completed, we can look forward to a substantially increased construction program for the Primary and Secondary systems, with special emphasis being given to urban traffic problems.

PAUL M. JOHNSON
State Highway Engineer

OBSERVATIONS OF THE STATE HIGHWAY ENGINEER

During the past biennium, there has been a continuation of the enlarged basic highway construction and maintenance program which was described in the previous report for the 1963-1964 biennium. There has also been considerable more emphasis placed recently on secondary highway features, such as safety, rest areas, and highway beautification.

HIGHWAY SYSTEMS

All of our state highways are a part of the Federal Aid System, and as such, are eligible for construction with matching Federal funds. All other costs pertaining to our highways, such as maintenance, administration, etc., must be financed entirely with state funds.

The Interstate System consists of 1,231 miles at the present time, and it is expected that this system will be reduced to 1,180 miles when completed as the result of shortening by relocation on newer and better lines. This system consists of Interstate Route 15 (U.S. 91 from Monida Pass to Sweetgrass), Interstate Route 90 (U.S. 10 from Lookout Pass to Billings and U.S. 87 from Billings to the Wyoming State line south of Wyola), and Interstate 94 (U.S. 10 from Billings to the North Dakota State line east of Wibaux). The cost of constructing this system is financed in the proportion of 91.21% Federal money and 8.79% State money. As of June 30, 1966, construction of 369 miles of the system had been completed at a cost of $195,419,961, exclusive of engineering and right-of-way costs. The system is maintained by the State Highway Commission.

The Primary System consists of 4,716 miles, exclusive of the Interstate System. The size of the system is limited by Federal law and additions to this system can be made only as a result of mileage accumulated because of shortening of existing sections upon reconstruction or extension of urban limits for cities of 5,000 population and over, thereby increasing the amount of mileage within urban limits which is not charged against the system. As a result of such mileage savings, it was possible to add the Broadus-Biddle highway to the Primary System during the past biennium. Maintenance is the responsibility of the State Highway Commission. Construction of the Primary System is financed in the ratio of 56.73% Federal money and 43.27% State money.

The size of the Secondary System is not limited by law; however, it is necessary that the size be kept consistent with the amount of money that is available for its construction. The present size of the system is 5,702 miles, which represents an increase of 124 miles over the mileage of 1964. The Secondary System is maintained by the counties or cities in which the highways are located, with the exception of certain arterial highways which are maintained by the State since they serve substantial traffic volumes of state-wide interest. At the present time we are maintaining 387 miles of secondary highway with a formal agreement to maintain 427 additional miles as soon as these highway are completed to paved standards. The construction of the Secondary System involves 56.73% Federal funds and 43.27% State funds.

PERSONNEL

During the past biennium, there have been continuing efforts to recruit graduate engineering and other students to assist in the expanding highway program. It is interesting to note that, despite an increased workload as reflected in growing expenditures for the biennium, there has actually been a slight decrease in the number of persons employed. As part of the personnel program, there has been an extensive driver improvement training program involving courses attended by each employee, and there is also an active safety program to prevent and reduce operating accidents within the department.

CONSTRUCTION

During the years following the inception of the Interstate System program in 1956, there was a substantial accumulated backlog of Federal funds available for this program which could not be utilized until the necessary survey, construction plans, and right-of-way acquisition activities could be accomplished. During the last two bienniums, the highway construction program has progressed to the extent that this accumulated construction backlog has been reduced to an amount equal to a current annual program. During the past biennium, construction contracts were awarded to the extent of $93,526,193. Projects were completed in the amount of $82,061,321 and at the close of the biennium on June 30, 1966, contracts were under way having a value of $108,045,637.

RIGHT-OF-WAY

During the biennium, 2,325 parcels of right-of-way were acquired amounting to 14,400 acres with a cost of $8,728,217. The average cost per acre was $606. About 9% of the parcels were acquired under condemnation procedures, which is about more than twice the condemnation rate in the previous biennium. At the present time there is a substantial backlog of condemnation cases awaiting court action.

MAINTENANCE

As of June 30, 1966, the department was maintaining 6,750 miles of highway, or 490 miles more than the amount being maintained as of June 30, 1964. Of the additional mileage, 427 miles consist of Interstate highways, 36 miles of new 4-lane Primary highways, and 27 miles of new Secondary highways. The direct highway maintenance costs for the past biennium amounted to $17,564,424. This represents a substantial increase over the amounts spent in previous bienniums, and it can be expected that these costs will continue to increase in the future as more miles of 4-lane Interstate highway are constructed and added to the system, together with related interchange ramp and frontage road facilities.

FINANCIAL

During the past biennium, state highway receipts amounted to $159,836,341 and expenditures amounted to $161,819,030. The increase of expenditures over receipts was accompanied by an equivalent reduction in the balances available in the State highway funds. These figures represent a 17% increase in both instances over the expenditures for the 1963-1964 biennium. The importance of Federal Aid to the highway program is evidenced by the fact that Federal Aid receipts amounted to $108,928,970 during the biennium, or an increase of 23% over similar receipts during the previous biennium. The substantial backlogs of Federal Aid and State Highway Fund balances available for matching purposes have been reduced greatly during the past biennium. At the close of the biennium ending June 30, 1966, both Federal Aid and State matching funds were on a current basis.

Although the State Highway Commission has operated under an annual budget for many years, it has been a single budget for the entire department. During the past biennium, the decision was made that each indi-

vidual division or section in the department would be required to prepare and operate under a budget. After review by a Budget Committee, the individual budgets have been consolidated into an over-all budget for the department. This action provides much better budgetary control over the operations of the department and the individual divisions and sections.

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PAUL M. JOHNSON
State Highway Engineer

NET LENGTH PRIMARY SYSTEM
(By Surface Type and County)

COUNTY	PRIMITIVE A		UNIMPR. B	GRADED & DRAINED C		GRAVEL E		BIT. SURF. TR. F		ROAD MIX G-1 UNDER 7"		ROAD MIX G-2 7" & OVER		PLANT MIX G-1 UNDER 7"		PLANT MIX G-2 7" & OVER		CIT. CONCRETE I		P.C. CONCRETE J		BRICK K	CABIN. M	TOTAL RURAL	TOTAL MUNICIPAL	GRAND TOTAL
	RURAL	MUNIC.	RURAL	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	MUNIC.	MUNIC.			
Beaverhead								0.241		2.306		57.867	0.033			95.355	1.671							155.789	1.704	157.493
Big Horn								2.631		7.563	0.151	62.295	1.488			66.429			0.034					138.918	1.673	140.591
Blaine								13.571		4.686		22.996	1.293			12.776								54.029	1.293	55.322
Broadwater								2.217		7.586		45.463	0.550			12.805	0.883	11.541	0.557					79.612	1.990	81.602
Carbon										9.713		62.009	3.134			17.297					0.432			89.019	3.566	92.585
Carter								10.845				6.883				32.270	0.357							49.998	0.357	50.355
Cascade								21.743	0.641	0.681		82.140	1.757	21.921	3.224	68.074	8.983	1.400	6.630	0.760	0.749			202.719	22.184	224.903
Chouteau								12.673	0.220	9.649		26.747	0.422			23.392								72.461	0.642	73.103
Custer								30.357	0.370	18.062	0.467	37.750	0.869			63.356			0.400	20.147	1.169			169.672	3.275	172.947
Daniels						4.885		35.014	0.278				0.653			7.070	0.523							46.969	1.454	48.423
Dawson								4.839		16.494		22.911	2.066			68.276	1.287				0.232			112.570	3.585	116.155
Deer Lodge										0.070		20.051	0.949			39.742	1.875							59.863	2.824	62.687
Fallon							0.144	49.328	1.237			22.576	0.832			11.275	1.148							83.179	3.361	86.540
Fergus								8.933		1.986		84.236	0.497			81.457	2.301			1.247	0.189			177.859	2.987	180.846
Flathead								10.545		16.510		119.473	1.238			64.120	2.749		0.836		0.292		0.005	210.648	5.120	215.768
Gallatin		1.250			0.568			10.124		20.098	0.207	23.469	1.143	8.049		81.096	3.467		1.186	10.718	0.342			153.554	8.163	161.717
Garfield								28.683		23.762		66.400	0.602			17.494								136.339	0.602	136.941
Glacier	1.287							17.558		16.859		82.884	0.719			30.286	1.039							148.874	1.758	150.632
Golden Valley								12.514	1.876	2.083		25.070												39.667	1.876	41.543
Granite				20.931		7.064		13.735		6.566	0.370	28.741	1.177			15.762								92.799	1.947	94.746
Hill								5.093		11.610		34.446	0.476			27.287	1.094				0.352			78.436	1.922	80.358
Jefferson								2.924		15.577		73.337	0.641			13.491	1.511							105.729	2.152	107.881
Judith Basin										5.818		40.527	0.222			14.810								61.155	0.222	61.377
Lake								8.488		12.476		50.827	0.931			41.143	0.776							112.934	1.707	114.641
Lewis & Clark								27.033	0.129	17.255	2.573	47.912	0.312	6.368		92.123	5.181		1.220		1.296	0.035		190.691	10.746	201.437
Liberty								0.253		4.017		19.728	0.859			0.983								24.981	0.859	25.840
Lincoln						0.033		54.397	0.073	9.141	0.424	91.682	2.536	11.310		5.320					0.166			171.883	3.219	175.102
Madison								10.064		60.843	0.662	72.210	3.081			14.370	1.576							157.467	5.319	162.806
McCone								55.397		31.566	0.404	58.204	1.173			8.325								153.492	1.577	155.069
Meagher								41.083		5.051		30.994				23.830	0.857				0.137			100.958	0.994	101.952
Mineral										1.375		16.525				56.836	3.351							74.736	3.351	78.087
Missoula								11.741	0.658	14.983	1.685	47.623	2.798			48.755	1.787		0.784		0.323	0.003	0.101	122.902	8.139	131.041
Musselshell								14.823	1.054	19.817		49.372	1.895			13.992	0.151		0.280				0.395	98.004	3.775	101.779
Park								17.446		11.281		35.193	2.499	1.523		61.311	0.392							126.754	2.891	129.645
Petroleum								7.983		11.215	0.715	14.889	0.182			5.833								39.920	0.897	40.817
Phillips								10.176	0.162			72.406	3.081			39.260					0.069			121.862	3.312	125.154
Pondera								3.565		13.151		23.197				11.895	0.955							51.808	0.955	52.763
Powder River								12.888	0.229			35.845	0.339			40.834								89.567	0.568	90.135
Powell										6.036		19.326	0.071			68.332	0.509		0.743					93.694	1.323	95.017
Prairie										5.525		18.075	1.002			4.137								27.737	1.002	28.739
Ravalli				16.294				29.553		2.029	0.320	38.610	1.769			14.584					0.009			101.070	2.098	103.168
Richland								57.603		19.984		41.072	2.740											118.659	2.740	121.399
Roosevelt								45.987	0.643	19.572	0.819	16.358	0.421			61.406	2.428				0.139			143.323	4.450	147.773
Rosebud								23.683	0.323	6.951		86.340				30.842	1.785							147.816	2.108	149.924
Sanders								30.623	0.247	15.722	0.103	55.690	0.649			44.458	0.403						0.454	146.493	1.856	148.349
Sheridan								16.031	0.143	6.378		41.683	0.817			11.792	1.367							75.884	2.327	78.211
Silver Bow								10.539	1.712	6.931		32.539	2.069			12.940	0.947	0.008	2.557	4.242	2.128		0.560	67.199	9.973	77.172
Stillwater								1.376				27.030	0.588			9.508								37.914	0.588	38.502
Sweet Grass								12.103		7.225	0.516	29.395				15.473	0.887							64.196	1.403	65.599
Teton								20.051	0.866	10.147	1.175	36.280	1.032			21.803								88.281	3.073	91.354
Toole								1.004		7.927	0.291	16.295	0.710			61.170	1.833							86.396	2.834	89.230
Treasure												10.513				17.809	0.545							28.322	0.545	28.867
Valley										3.552		42.182	0.487			51.757	1.405				0.150			97.491	2.052	99.543
Wheatland								9.770		7.421	0.060	35.159				25.877	1.623							78.227	1.683	79.910
Wibaux													1.540			43.174	0.969							43.174	2.509	45.683
Yellowstone	0.282							8.968		17.651		99.871	1.206			42.878	3.864		1.612	0.058	0.402		1.873	169.708	8.957	178.665
TOTALS	1.569	1.250		37.225	0.568	11.982	0.144	636.246	10.861	553.301	10.942	2367.116	55.758	49.171	3.224	1866.670	62.479	12.949	16.839	37.172	8.596	0.038	3.388	5773.401	174.087	5947.488

NET LENGTH SECONDARY SYSTEM
(By Surface Type and County)

COUNTY	CODE NO.	PRIMITIVE A RURAL	PRIMITIVE A MUNIC.	UNIMPROVED B RURAL	UNIMPROVED B MUNIC.	GRADED & DRAINED C RURAL	GRADED & DRAINED C MUNIC.	GRAVEL E RURAL	GRAVEL E MUNIC.	BIT. SURF. TR. F RURAL	BIT. SURF. TR. F MUNIC.	ROAD MIX G-1 UNDER 7" RURAL	ROAD MIX G-1 UNDER 7" MUNIC.	ROAD MIX G-2 7" & OVER RURAL	ROAD MIX G-2 7" & OVER MUNIC.	PLANT MIX G-1 UNDER 7" RURAL	PLANT MIX G-2 7"&OVER RURAL	PLANT MIX G-2 7"&OVER MUNIC.	BIT. CONC. I MUNIC.	P. C. CONCRETE J RURAL	P. C. CONCRETE J MUNIC.	UNCSA K MUNIC.	COMBINATION M RURAL	COMBINATION M MUNIC.	TOTAL SECONDARY RURAL	TOTAL SECONDARY MUNICIPAL	TOTAL
Beaverhead	1	2.500						104.266		0.110				8.794			16.179								131.879		131.879
Big Horn	2	8.600						62.333		8.869	0.649			30.452			35.629	0.700							145.683	[illegible]	147.432
Blaine	3	14.400		5.400		4.335		120.746		1.465				5.731	1.064		48.272	0.338							200.349	[illegible]	201.751
Broadwater	4	2.000		3.800		1.000		6.700		3.508		4.969		16.473			7.027								45.477		45.477
Carbon	5							15.708		14.621	1.092			22.638	0.470		21.929								74.856	1.964	76.458
Carter	6					17.158		128.083						0.173			7.952	0.242							153.366	0.242	153.608
Cascade	7	1.600	0.200	6.000		8.300		37.125		22.778	2.258	4.356	0.804	31.826	0.213		24.983	0.572							136.968	4.047	141.015
Chouteau	8	3.200		1.500		63.006		37.251		21.240		1.666	1.613	13.329	0.622		47.661	0.451							188.853	3.186	192.039
Custer	9							66.461	0.509								8.615								75.076	0.509	75.585
Daniels	10							35.073		13.516	0.289			9.152	0.441		8.976								66.717	0.730	67.447
Dawson	11					22.564		38.744		17.365							28.974	1.365			0.337				107.647	1.702	109.349
Deer Lodge	12							1.800		5.029				24.371			10.248								41.448		41.448
Fallon	13					14.460		79.536	0.745					0.435											74.431	0.745	95.176
Fergus	14			18.200		6.700		26.785	0.353	17.166				22.003	0.821		40.772	0.724							131.826	1.898	133.724
Flathead	15	0.700		2.500		10.000		90.322		1.326	1.932			11.465			29.398	0.024							145.711	1.956	147.667
Gallatin	16			5.300		10.362		40.992	0.400	16.893	0.883	17.654	0.350	57.507	1.290		15.040	1.280	0.661	0.193					163.941	4.864	168.805
Garfield	17					42.032		61.844	0.320																103.876	0.320	104.196
Glacier	18	5.200				3.791		59.103		8.409	0.400	6.562		12.436			54.925	0.437							155.428	0.837	156.263
Golden Valley	19					2.003		16.900	1.203																18.900	1.203	20.103
Granite	20							27.885									4.361								32.246		32.246
Hill	21			0.983		41.708		72.380	0.066	33.742	0.334			14.178	0.006		25.630	0.732							188.671	1.138	189.809
Jefferson	22					0.390	0.245	32.540	0.300	14.916		0.037	0.322	9.671			15.353								72.907	0.867	73.774
Judith Basin	23							27.611		0.122	0.688			15.130	0.464		10.589	0.027							53.452	2.179	55.631
Lake	24	3.600						34.350	0.450	0.300	0.400	2.600	0.400	11.441	0.279		50.189								102.480	1.529	104.009
Lewis & Clark	25			0.923		14.332		40.261		49.119	1.080	11.205		14.166			18.803	0.674	0.152						129.804	1.906	150.715
Liberty	26	6.000		3.000		18.500		50.326		7.831		11.048					11.231	0.538							107.936	0.538	108.474
Lincoln	27			11.900		6.565		52.335									21.455								92.255		92.255
Madison	28					5.100		39.472		13.621				15.378			6.745								80.316		80.316
McCone	29	3.600		9.000		29.897		73.739									0.155	0.461							116.391	0.461	116.852
Meagher	30							25.431						2.118			20.340	0.498							47.889	0.498	48.387
Mineral	31	0.431		0.600				10.559	1.325				0.293	6.650	0.722		4.234	0.339							22.474	2.679	25.153
Missoula	32	1.250		1.100				29.708		36.849	0.770	19.298	3.353	24.137	1.381	14.458	21.588	1.282	0.206						148.398	6.892	155.380
Musselshell	33	6.800				4.000		49.404		2.000				0.681			1.647								64.532		64.532
Park	34					1.200		26.150						4.309			18.867								50.526		50.526
Petroleum	35			18.200		4.509		0.991						11.679	1.314		10.057								45.436	1.314	46.750
Phillips	36					5.500		60.434						17.945	0.315		28.250	0.525							112.129	0.840	112.969
Pondera	37	1.300				0.510		56.574		10.824	0.909			42.691	1.304		28.598	0.158							140.493	2.371	142.864
Powder River	38	0.900		1.900		18.369		73.916									9.121								104.206		104.206
Powell	39					5.096		50.956		5.011							11.888								72.951		72.951
Prairie	40							59.486		6.195		1.129		2.197											69.007		69.007
Ravalli	41	2.200		0.800				24.468		12.372	1.140	15.389		25.318	0.058		25.664	0.038							106.211	1.236	107.447
Richland	42	7.000		0.757		32.647		31.585						11.385	0.368		13.020	1.711							96.394	2.079	98.473
Roosevelt	43	2.100		2.256	0.396	10.664		70.920	0.502	21.673				30.157	0.640		57.672								195.422	1.538	196.960
Rosebud	44	0.200				2.300		51.667		8.131				30.589			13.049								105.936		105.936
Sanders	45	4.000		10.200		8.421		15.200		9.837				5.928			16.534								70.120		70.120
Sheridan	46					6.300		41.579		21.116				6.045	0.636		27.111						0.253		102.151	0.636	102.787
Silver Bow	47			4.200		1.000		15.386		1.495	1.254	5.126		1.132			8.206	0.589	1.055						36.545	3.156	39.701
Stillwater	48							24.534				2.579		43.863	0.296		21.937								92.913	0.296	93.209
Sweet Grass	49			9.900		12.200		37.634	0.180		0.220		0.211	15.357	0.269										75.091	0.880	75.971
Teton	50			2.000		16.497		28.561		6.003				38.560	1.217		18.979								110.580	1.217	111.797
Toole	51					11.604		87.105		4.489				9.964	0.679		6.143	0.548							119.305	1.227	120.532
Treasure	52							35.894		6.820				3.959											46.673		46.673
Valley	53					6.600		76.628	0.001	5.422				28.984	1.025		52.604	0.700	0.200						170.478	1.426	171.904
Wheatland	54					8.709		30.218	0.214								7.341								46.268	0.214	46.482
Wibaux	55	7.000		12.191		1.500		36.957									0.155	0.081							57.803	0.081	57.884
Yellowstone	56			13.274		15.900	0.130	45.587		18.891	0.771	1.458	2.119	17.600			29.274	4.649							141.984	7.604	149.653
TOTAL		84.581	0.200	145.884	0.396	495.726	0.375	2578.183	6.568	649.154	15.074	105.076	9.465	727.997	15.894	14.458	1028.606	21.183	2.274	0.193	0.337			0.253	5629.858	72.019	5701.877

SUMMARY OF SURFACE TYPES AND MILEAGE

TABLE "A"—SUMMARY OF SURFACE TYPES—ALL SYSTEMS—MILES

	Unimproved	Gr. & Dr.	Gravel	Light Oil Mix	Bituminous Road Mix	Bituminous Plant Mix	P. C. Concrete	Other	Total
Federal Aid Highway System									
Primary (1)	3	38	12	847	2,987	2,011	46	3	5,947
Secondary	231	496	2,585	464	858	1,067	1		5,702
Other			14		5	3	1		23
							Total		11,672
Local Systems									
Rural	27,702	9,357	22,272	170	879		12		60,392
Municipal		207	471	237	888		17	1	1,821
TOTALS	27,936	10,098	25,354	1,723	5,615	3,079	76	4	73,885

TABLE "B"—SUMMARY OF ROUTES BY LOCATION—MILES
STATE HIGHWAY SYSTEM

	Municipal	County	National Forest	Indian Reservation	Military Reservation	State Forest	National Park	Game Refuge	Total
Primary (1)	174 (2)	4,635	456	586		42	24	38	5,955
Secondary	72 (4)	4,722	349 (4)	522	1	23 (3)		27	5,716
Other	4	16	3						23

Grand Total	11,694
Less Coincident Mileage	22
Net Total	11,672

TABLE "C"—INTERSTATE HIGHWAY

Location—U. S. 10 from Lookout Pass on Idaho State Line via Missoula, Butte, Billings, Glendive to North Dakota State Line near Wibaux
U. S. 87 from Billings via Hardin to Wyoming State Line south of Wyola
U. S. 91 from Monida Pass on Idaho State Line via Dillon, Butte, Helena, Great Falls, Shelby to Canadian Border at Sweet Grass

Length

Present traveled way	1.231 miles
Estimated final length	1,180 miles

Present Surface Types (6)

Bituminous Surface Treatment	6 miles
Bituminous Road Mix	0 mile
Bituminous Plant Mix	332.2 miles
Portland Cement Concrete	30.9 miles

Lanes (6)

Four Lane Highway	139.6 miles
Two Lane Highway	229.5 miles

TABLE "D"—NATIONAL FOREST HIGHWAY SYSTEM

Class 1	676 miles
Class 2	323 miles
Class 3	262 miles
Total	1,261 miles

Unimproved	113 miles
Graded	57 miles
Graveled	239 miles
Bituminous Surface Treated	189 miles
Bitum, Road Mix	274 miles
Bitum, Plant Mix	389 miles
Total	1,261 miles

Constructed by State	244 miles
Constructed by B.P.R. (5)	640 miles
Constructed by Others	6 miles
Unconstructed	371 miles
Total	1,261 miles

Notes:

(1) Includes Interstate
(2) 5 miles municipal also in Indian Reservation
3 miles municipal also in National Forest
(3) 0.2 miles in National Monument
(4) 14 miles coincident mileage as in (2)
(5) B.P.R.—Bureau of Public Roads
(6) Completed to Interstate Standards

APPORTIONMENT OF STATE CONSTRUCTION FUNDS

Montana law requires that State highway construction funds be divided among the different systems and among the financial districts, counties and urban cities on the basis of prescribed formulas. The tables on this page show the distribution percentages for the fiscal years ending June 30, 1966 and June 30, 1967:

INTERSTATE SYSTEM

Financial District	Counties	Percentages for FY 1966	FY 1967
2	Toole	2.4820	2.4811
6	Cascade, Pondera, Teton	9.7817	9.7885
7	Broadwater, Jefferson, Lewis & Clark	16.5517	18.2081
8	Granite, Mineral, Missoula, Powell	22.2666	20.4536
9	Beaverhead, Deer Lodge, Madison, Silver Bow	10.6009	10.8288
10	Gallatin, Park, Sweet Grass	10.5221	9.7166
11	Big Horn, Stillwater, Treasure, Yellowstone	18.8720	19.4041
12	Custer, Rosebud	4.2560	4.2768
	TOTAL	100.0000	100.0000

Allocation percentages have been adjusted in accordance with the latest needs estimate of July 1966. The Interstate System does not enter Financial Districts 1, 3 and 5 and some counties in other Districts.

PRIMARY SYSTEM

(Based on deficient highway mileage)

Financial District	Counties	Percentages for FY 1966	FY 1967
1	Flathead, Lincoln, Lake	11.4315	12.6904
2	Blaine, Glacier, Hill, Liberty, Toole	6.8980	7.2040
3	Daniels, Phillips, Boosevelt, Sheridan, Valley	10.8555	10.3947
4	Dawson, McCone, Prairie, Richland, Wibaux	9.1058	7.6987
5	Fergus, Garfield, Petroleum	5.9577	7.4430
6	Cascade, Judith Basin, Pondera, Teton	8.4898	8.2880
7	Broadwater, Jefferson, Lewis & Clark	4.5662	4.4191
8	Granite, Mineral, Missoula, Powell, Ravalli, Sanders	12.2408	10.2779
9	Beaverhead, Deer Lodge, Madison, Silver Bow	4.8911	5.3974
10	Gallatin, Meagher, Park, Sweet Grass, Wheatland	8.5682	7.6987
11	Big Horn, Carbon, Golden Valley, Musselshell, Stillwater, Treasure, Yellowstone	8.5963	8.6882
12	Carter, Custer, Fallon, Powder River, Rosebud	8.3991	9.7999
	TOTAL	100.0000	100.0000

Percentages shown exclude Primary System mileage located on Interstate System.

URBAN SYSTEM

(Based on Urban population of 5,000 or more)

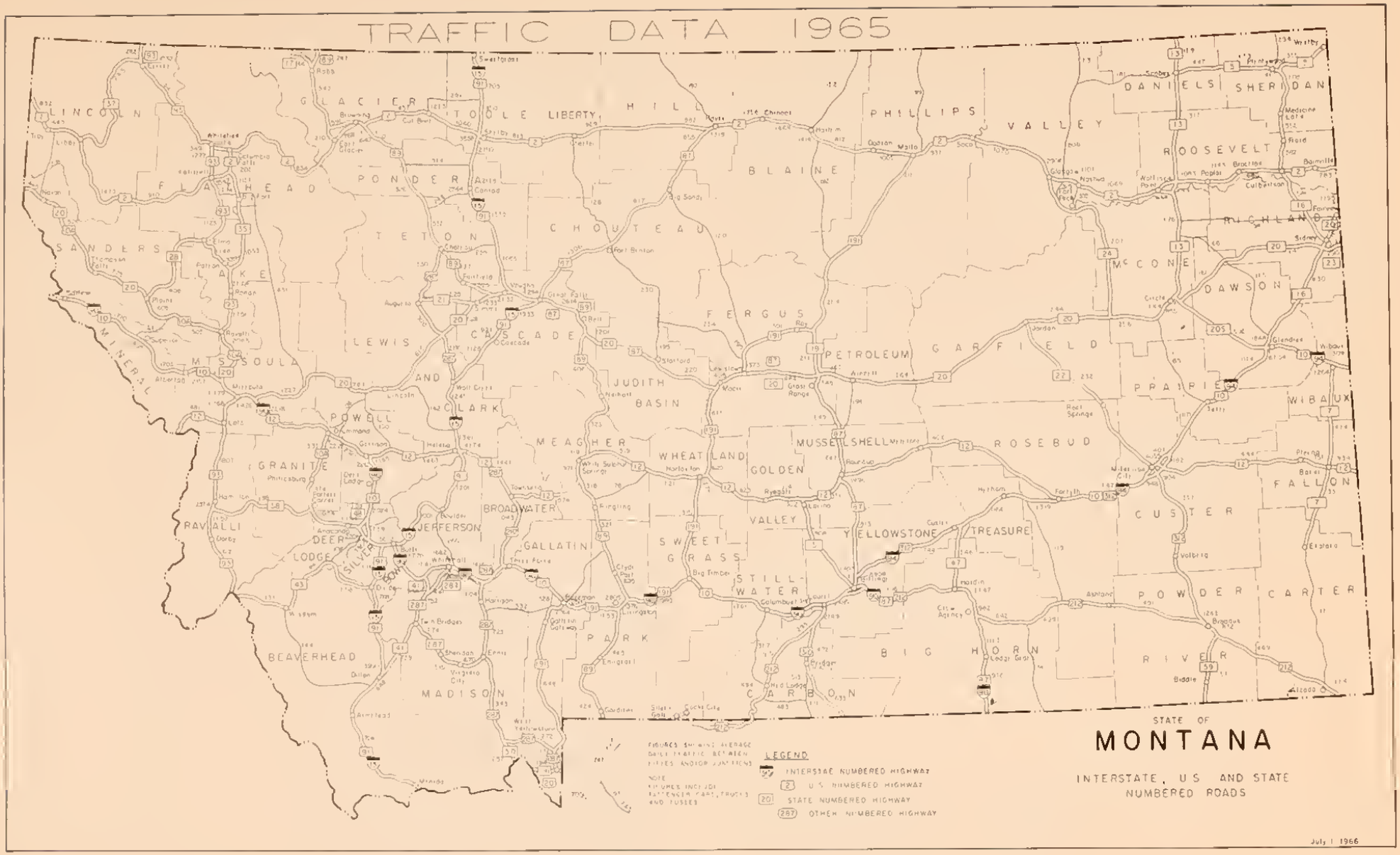
Urban City	Percentages for FY 1966	FY 1967	Urban City	Percentages for FY 1966	FY 1967
Anaconda	4.1696	4.1696	Havre and environs	4.1191	4.1191
Billings	18.2819	18.2819	Helena	6.9968	6.9968
Bozeman	4.6217	4.6217	Kalispell	3.5114	3.5114
Butte and environs	14.3544	14.3544	Lewistown	2.5625	2.5625
Glasgow	2.2132	2.2132	Livingston	2.8465	2.8465
Glendive	2.4415	2.4415	Miles City	3.3432	3.3432
Great Falls	19.1487	19.1487	Missoula and environs	11.3895	11.3895
			TOTAL	100.0000	100.0000

Population reported in U. S. Census for fringe areas of Butte, Havre and Missoula has been included as urban population in accordance with requirements of State law. The percentages will remain constant until 1970.

SECONDARY SYSTEM

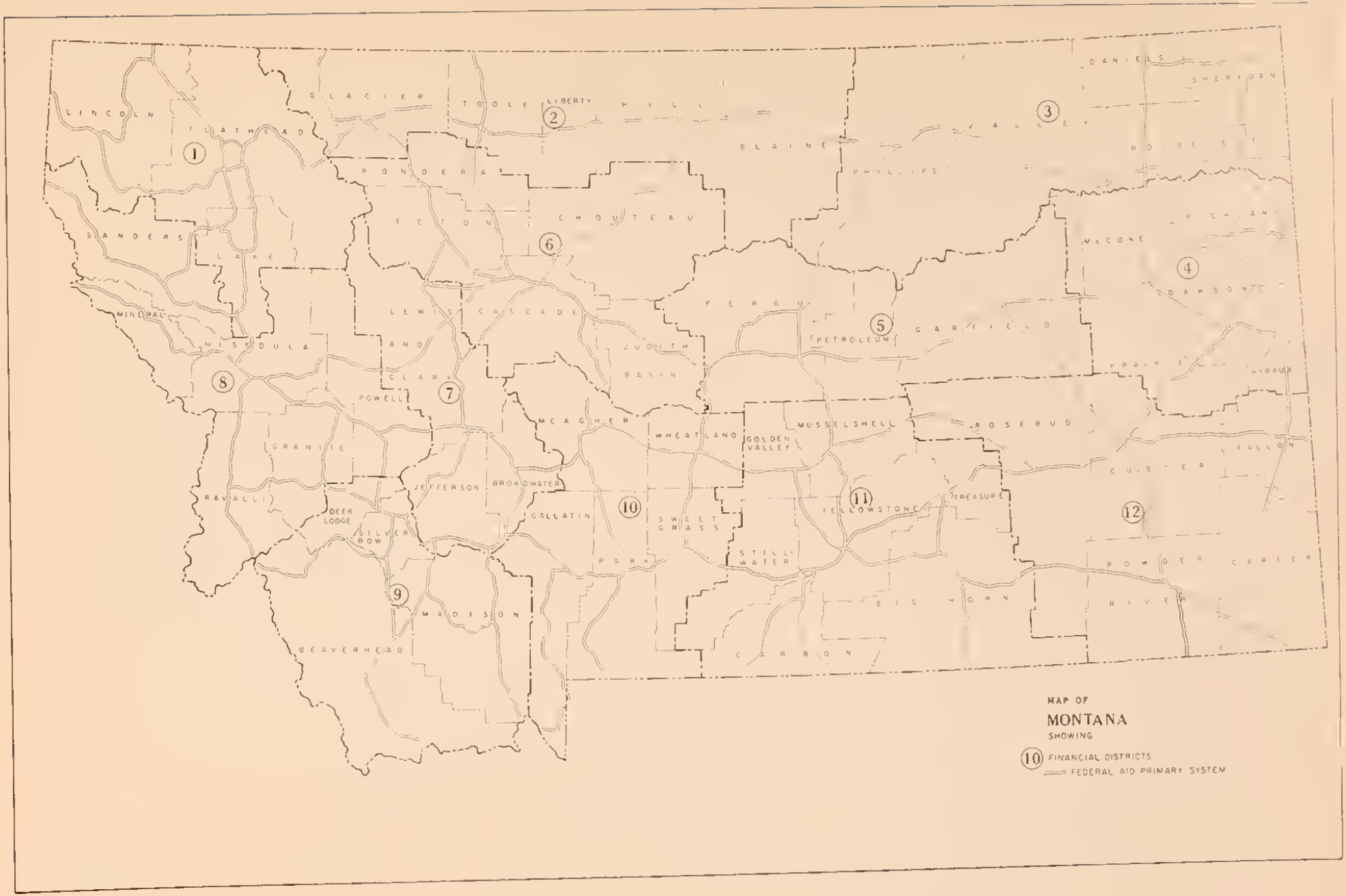
Based on land area, rural road mileage, rural population, and rural land value

County and Financial District	Percentages for FY 1966	FY 196
Flathead	3.8075	3.922
Lake	1.9578	1.985
Lincoln	2.3183	2.397
Financial District No. 1	8.0836	8.304
Blaine	2.7487	2.7284
Glacier	2.0229	2.0294
Hill	2.6594	2.6674
Liberty	1.4197	1.4257
Toole	2.0139	2.0329
Financial District No. 2	10.8646	10.8872
Daniels	1.2759	1.2819
Phillips	2.7622	2.5719
Roosevelt	2.2308	2.2257
Sheridan	1.7892	1.7721
Valley	3.2539	3.1317
Financial District No. 3	11.2920	10.9833
Dawson	1.6487	1.6196
McCone	1.7488	1.5516
Prairie	0.8515	0.8192
Richland	2.1076	2.1002
Wibaux	0.7075	0.7057
Financial District No. 4	7.0641	6.8263
Fergus	2.8245	2.8266
Garfield	1.8801	1.9047
Petroleum	0.7365	0.7368
Financial District No. 5	5.4411	5.4681
Cascade	3.1128	3.1281
Chouteau	3.8278	3.8376
Judith Basin	1.4680	1.4675
Pondera	1.9817	2.0718
Teton	2.3747	2.3789
Financial District No. 6	12.7650	12.8839
Broadwater	0.8131	0.8484
Jefferson	0.9239	0.9307
Lewis & Clark	1.9038	1.9153
Financial District No. 7	3.6708	3.7144
Granite	0.7563	0.7737
Mineral	0.6800	0.6689
Missoula	1.9436	1.9933
Powell	1.3838	1.3817
Ravalli	1.9139	1.9366
Sanders	1.6083	1.6505
Financial District No. 8	8.2859	8.4047
Beaverhead	2.5642	2.5490
Deer Lodge	0.7784	0.7444
Madison	1.7042	1.9582
Silver Bow	0.6733	0.6575
Financial District No. 9	5.7201	5.9091
Gallatin	2.3584	2.3744
Meagher	1.0939	1.0813
Park	1.4709	1.4750
Sweet Grass	1.0324	1.0266
Wheatland	0.8312	0.8317
Financial District No. 10	6.7868	6.7890
Big Horn	2.8179	2.7449
Carbon	1.7035	1.7142
Golden Valley	0.6852	0.6863
Musselshell	1.2186	1.2209
Stillwater	1.4409	1.4384
Treasure	0.5338	0.5233
Yellowstone	3.6301	3.6482
Financial District No. 11	12.0300	11.9753
Carter	1.3645	1.3550
Custer	1.5835	1.5846
Fallon	1.1361	1.1114
Powder River	1.5276	1.4742
Rosebud	2.3843	2.3286
Financial District No. 12	7.9960	7.8538
State Total	100.0000	100.0000


TRAFFIC DATA 1965
LINCOLN
FLATHEAD
SANDERS
LAKE
MINERAL
MISSOULA
RAVALLI
GLACIER
TOOLE
LIBERTY
HILL
PONDER
TETON
CHOUTEAU
BLAINE
PHILLIPS
VALLEY
DANIELS
SHERIDAN
ROOSEVELT
McCONE
DAWSON
RICHLAND
LEWIS AND CLARK
CASCADE
FERGUS
JUDITH BASIN
POWELL
GRANITE
DEER LODGE
SILVER BOW
BROADWATER
JEFFERSON
GALLATIN
MEAGHER
WHEAT LAND
GOLDEN VALLEY
SWEET GRASS
STILL-WATER
PARK
BEAVERHEAD
MADISON
CARBON
PETROLEUM
GARFIELD
PRAIRIE
MUSSELSHELL
ROSEBUD
YELLOWSTONE
TREASURE
WIBAUX
FALLON
CUSTER
POWDER
CARTER
RIVER
BIG HORN
LEGEND
INTERSTATE NUMBERED HIGHWAY
U.S. NUMBERED HIGHWAY
STATE NUMBERED HIGHWAY
OTHER NUMBERED HIGHWAY
STATE OF
MONTANA
INTERSTATE, U.S. AND STATE
NUMBERED ROADS
July 1 1966

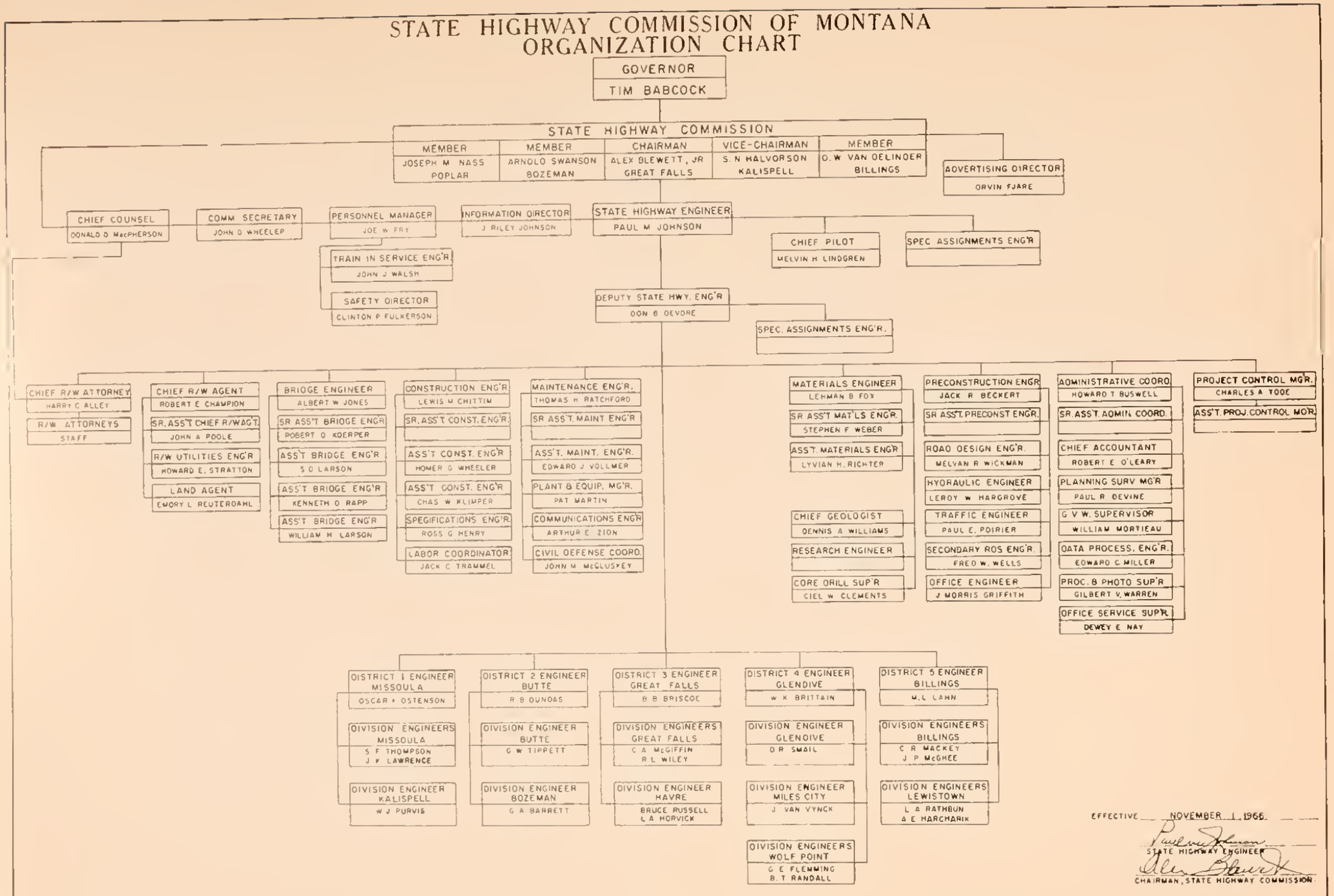

FEDERAL AID INTERSTATE SYSTEM

FEDERAL AID INTERSTATE SYSTEM



MAP OF
MONTANA
SHOWING
(10) FINANCIAL DISTRICTS
FEDERAL AID PRIMARY SYSTEM

STATE HIGHWAY COMMISSION OF MONTANA
ORGANIZATION CHART



EFFECTIVE NOVEMBER 1, 1966.

STATE HIGHWAY ENGINEER

CHAIRMAN, STATE HIGHWAY COMMISSION

PERSONNEL REPORT

The Personnel Manager is responsible for the basic personnel functions and records, plus the recruiting, training, and safety activities of the Department.

As a part of performing its basic personnel function, the Personnel Department is responsible:

(A) To screen applicants as to their basic qualifications and their application to such vocations as engineering and technical and skilled trades.

The information is subsequently filed, categorically, for the future reference of divisions and section supervisors who are responsible for the final selection and placement. This procedure is calculated to save the supervisor valuable time in investigation and considerable unnecessary interviewing.

(B) To maintain complete personal histories of all employees. To maintain time and attendance records and performance records.

This encompasses such matters as veteran's preference, residence requirements, proper age limits, employee conduct, and other prescribed criteria.

(C) To insure that all prescribed regulations, statutory laws and Commission policies are strictly complied with where they concern personnel procedures.

(D) To compile statistical reports with subsequent analyses of wage structures, retention factors, cost-of-living index, organizational changes, advancements, and turnover.

These analyses are based on comparative studies conducted in other states, supply and demand, and factors of money, manpower, and management.

The Personnel and Salary Summary shown on the following page gives details on numbers of personnel, classification and wage rates.
A Personnel Manual, setting forth personnel regulations and procedures, was prepared and distributed.

The program, which was established a few years ago, granting service pins and certificates for terms of employment of five years and multiples thereof has been continued as it has proved to be very successful.

Intensified effort in the area of recruitment of college graduates has been fruitful. Despite severe competition, twenty-seven graduate Civil Engineers were recruited during the biennium. Increasing numbers of college graduates in other fields are also being hired and utilized.

Activities of the Safety Department during the biennium were as follows:

(A) Reduction of Industrial Accident costs by reducing the accident frequency rate. This was accomplished by holding Safety Meetings throughout each Division.

(B) Reduction in equipment costs from accidents throughout each Division.

(C) Increased safety through the inspection of all construction projects.

(D) Increased safety to the public by inspection of all signing on construction projects, so that it is signed according to the accepted standards.

(E) Inspection of all maintenance projects.

(F) Inspection of all maintenance facilities. (Garages and shops)

First aid schools were held for all employees. Since our personnel are often the first ones at the scene of an accident, the benefit of this training should enure to the general public as well as the Department. A system for the review of accidents was set up. The system of reviewing accidents is working very well in each Division.

A representative of the Safety Department attends all preconstruction conferences. The objective is to acquaint highway contractors with safety requirements and to focus attention on the necessity for conducting all operations safely.

The Safety Department was given the task of conducting the Driver Improvement Program for all highway Department employees. Training has been given to 1500 employees in Helena Headquarters and throughout each Division. Leaving approximately 1,000 employees to receive the Driver training. The Driver Improvement Program was inaugurated as part of Governor Babcock's Safety Program. The remaining employees will receive driver's training by the end of 1966.

TRAINING-IN-SERVICE REPORT

The major functions, duties and responsibilities of the Training-in-Service Department are:

Prepare and administer all promotional examinations for engineering personnel below Salary Grade G-24.

Initiate and coordinate voluntary off duty night schools for highway personnel throughout the State.

Initiate and coordinate seminars and training sessions for field and headquarters personnel.

Conduct interviews in colleges and universities in state and out-of-state for graduate Civil Engineers.

Supervise and coordinate the Engineer-in-Training Program for graduate Civil Engineers.

Supervise and coordinate the Summer Hire Program for undergraduate Civil Engineers.

Prepare and maintain manpower inventory records for engineering personnel.

Prepare and revise position classifications as necessary.

TRAINING-IN-SERVICE ACTIVITIES REPORT

July 1, 1964 — June 30, 1966

Examinations For Advancement

G Classification	Number Given	Type of Examination
G-15	198	Rodman; Mat'l Insp.; Draftsman III; Lab. Tech III.
G-17	11	Detailer I
G-19	81	Instrumentman; Bridge Inspector; Designer I.
G-21	20	Prop. Eng.; Div. Mat'l Supv. II; Designer II; Off. Eng. II.
G-23	26	Res. Engr.; Div. Off. Engr. III; Designers III.

Total number of examinations given 336
Number passing examinations 218
Number failing examinations 118

VOLUNTARY NIGHT SCHOOLS

Number Held	Type of School	Students Completing The School
20	Basic Engineering	169
1	Basic Mathematics	6
8	Advanced Engineering	54
1	Beginning Statistics	12
1	Mechanics of Fluids	7
1	Statics & Strengths of Materials (Part I)	4
Total number of schools in 15 locations		32
Total number of certificates awarded		252

I. C. S. ENROLLMENT

I. C. S. Enrollments during period 28

SEMINARS

February 9, 1965 — February 11, 1965; December 14, 1965—December 15, 1965;

Training session for all Division Materials Supervisors I & II held in Helena for standardizing the instruction of the Construction Inspection Schools.

March 1965; January 1966—February 1966;

Construction Inspection School held in 11 Divisions with representatives from Construction, Materials and Training-in-Service Departments attending a portion of each school. Engineering Aide I's, Engineering Aide II's and Rodmen attended the schools.

Certificates were awarded to 965 employees.

MANUAL

Construction Inspection Manual completed. A total of 1134 copies distributed the week of June 21, 1965.

RECRUITMENT INTERVIEWS

Interviews held at Montana State University, Bozeman.
Interviews held at 15 out-of-state colleges and universities.
Interviews held at Northern Montana College, Havre, for drafting graduates.

GRADUATES HIRED

Civil Engineers	27
Other	14
Const. Tech.	3
2-year Drafting	6

ENGINEER-IN-TRAINING PROGRAM

Current Engineers-in-Training	12
Number that have completed training	9

SUMMER HIRE PROGRAM

Total number of Under-Graduate Civil Engineers employed through the Summer Hire Program	34

REGISTRATION

Number of Civil Engineers who became registered:	
December 1964	4
December 1965	9
Total registered	13

MANPOWER INVENTORY

Completed by I.B.M. for all Engineering Personnel G-19 through G-23

PERSONNEL AND SALARY SUMMARY

(ENGINEERING, ADMINISTRATION & MAINTENANCE PERSONNEL)

Pay-roll Grade	Salary Range 1962 Min.	Max.	No. in Grade 1962
P-9	$1100	$1320	1
P-8	910	1100	4
P-7	830	1000	8
P-6	720	870	12
P-5	690	830	17
P-4	630	755	13
P-3	600	720	19
P-2	550	660	115
P-1	500	600	121
SP-6	550	660	6
SP-5	525	630	3
SP-4	455	550	36
SP-3	415	500	238
SP-2	360	435	161
SP-1	345	Temp.	247
NE-11	690	830	13
NE-10	600	720	11
NE-9	550	660	11
NE-8	500	600	40
NE-7	455	550	29
NE-6	415	500	24
NE-5	375	455	34
NE-4	345	415	24
NE-3	315	375	33
NE-2	285	345	15
NE-1	255	315	12
SUBTOTAL			1247
Maintenance Personnel			758
GRAND TOTAL—1962			2005

Pay-roll Grade	Salary Range 1964 Min.	Max.	No. in Grade 1964
G-35	$1100	$1320	1
G-34	1050	1260	1
G-32	955	1150	7
G-30	870	1050	5
G-28	790	955	25
G-26	720	870	28
G-24	660	790	11
G-23	630	755	34
G-21	575	690	139
G-20	550	660	5
G-19	525	630	212
G-17	475	575	84
G-15	435	525	269
G-13	395	475	79
G-12	375	455	157
G-11	360	435	47
G-10	345	415	388
G-9	330	395	41
G-7	300	360	25
G-5	270	330	35
SUBTOTAL			1593
Maintenance Personnel			734
GRAND TOTAL—1964			2327

Pay-roll Grade	Salary Range 1966 Min.	Max.	No. in Grade 1966
G-35	$1125	$1320	1
G-33	1025	1225	1
G-32	980	1175	8
G-30	895	1075	6
G-29	855	1025	1
G-28	815	980	19
G-26	745	895	35
G-24	685	815	11
G-23	655	780	45
G-21	600	715	143
G-20	575	685	5
G-19	550	655	274
G-18	525	625	147
G-17	500	600	180
G-16	480	575	30
G-15	460	550	399
G-14	440	525	243
G-13	420	500	347
G-12	400	480	50
G-11	385	460	112*
G-10	370	440	30
G-9	355	420	
G-8	340	400	30
G-7	325	385	*
G-6	310	370	33
G-5	295	355	
SUBTOTAL			2150**
GRAND TOTAL—1966			2150

*Temporary Position

**1966 Total Includes 720 Maintenance Personnel

HIGHWAY CONSTRUCTION REPORT

The Construction Engineer and the Bridge Engineer are charged with the general overall responsibility for the construction of roadway and bridge projects. Their contact with construction engineering forces is through the District Engineers.

The Construction Engineer is called upon for advice during various phases of project planning prior to and during construction. He is Chairman of the Board of Review that sets completion dates and reviews the various unit bid prices for each proposed contract prior to bid opening date. The Bridge Engineer and his staff prepare and check all plans and specifications for bridge and structure projects and are called upon for advice during the various phases of planning and construction.

The progress estimates for payment of contract work are processed and reviewed by these offices. They also review all sub-contracts and modifications of contracts after execution. They must review and weigh all circumstances and conditions concerned with overruns of contract time and submit their recommendations to the State Highway Commission as pertains to possible liquidated damages due to delay in completion time. They make frequent field inspection trips to obtain assurance that projects are being built in accordance with plans and specifications and to advise District Engineers and field assistants relative to their problems. They and their staffs evaluate and recommend new materials, equipment and procedures.

Changes in design, materials and construction methods make review and updating of the Standard Specifications a continuing task. A new edition of the Standard Specifications was issued, effective March, 1966. The Construction Engineer and Bridge Engineer must also prepare Special Provisions, which cover special situations unique to individual projects.

The Construction Engineer and Bridge Engineer are members of a Prequalification Board, established many years ago, to review, consider and rate all prospective bidders as to their ability to bid upon, accept project awards and construct contemplated projects. It is now a requirement that where sub-contracts are involved on projects awarded after April, 1966, all subcontractors must be prequalified at least two (2) weeks prior to their start of work. The State Highway Engineer, the Office Engineer, and the Chief Accountant are the other members. The prequalification procedure is actually for the protection of the public in that it tends to assure that contractors who bid on highway contracts have the qualifications and equipment necessary to do the work.

Two Assistant Construction Engineers and one Engineer-in-Training were added to the staff of the Construction Engineer. These men visit construction projects periodically to give guidance and advice on special problems and to insure uniform interpretation of specifications. The first section of a Construction Manual was prepared and distributed. Training of construction inspection personnel was accentuated through seminars and other training activities.

All contracts let in recent years, wherein Federal-Aid is involved, include a provision stipulating job classification and minimum wages for all of a contractor's employees. The Construction Engineer is charged with the enforcement of this provision.

The Bridge Engineer and his staff plans, designs, prepares and checks all plans and specifications for structures, consisting of bridges, separations, overhead signs and retaining walls, and supervises the construction of these structures. An Assistant Bridge Engineer was added to the staff of the Bridge Division to further assist with the construction phase.

The Bridge Division strives to use up-to-date techniques in the planning and design phases and to plan structures that are compatible with modern construction practices. Every effort is made to obtain maximum economy consistent with sound engineering practice for all structures.

During the past biennium 35,017 lineal feet, or over 6½ miles of structures were awarded to contract. This consisted of 153 bridges and separations having a total contract amount of $17,859,077.25.

The largest structure awarded to contract during the biennium was the bridge over the Yellowstone River on Interstate 94 near Glendive. When completed, this structure will be 2,013 feet long and will contain 6,784 cubic yards of concrete, 291 tons of reinforcing steel and 1,610 tons of structural steel. This structure was awarded to contract in the amount of $1,559,034.45.

The devastating flood of June, 1964, necessitated that 13 bridges be replaced and two bridges repaired under "Emergency Repair" Projects, and represented $1,813,377.48 of the total awards to contract.

The following tabulation shows the number, length and amount of the various types of bridges and separations awarded to contract during the biennium.

Number and Type	Length in Feet	Amount
134 Precast Prestressed Concrete Beam Structures	26,563	$11,989,913.32
12 Steel Girder Structures	8,372	5,683,070.08
1 Cast-in-Place Concrete Structure	65	33,925.81
1 Minor Structure (Less than 20' in Length)	17	22,993.84
5 Structures Repaired and/or Revised	.....	129,174.20

The Bridge Division also assisted in the planning and processing of 14 projects for the protection of railway-highway grade crossings with automatic flashing light signal installations. These projects will represent a total cost of approximately $164,000.00 and are as follows:

SG 4 (9)—Hamilton
IG 15-4 (27) 219—Wolf Creek
I 15-5 (24) 274—Great Falls
SG 18 (4)—Two Dot
SG 88 (4)—Belgrade
I 90-1 (34) 53—Superior, Southeast
I 90-2 (17) 114—Piltzville, Southeast
FG 207 (9)—Butte
SG 217 (3)—Zurich
FG 217 (16)—Livingston, South—Two Locations
SG 407 (3)—Lothrop
SG 412 (4)—East Helena
US-USG 421 (4)—Great Falls—Two Locations
SG 436 (1)—Bozeman, North

Bids were opened and awards subsequently made on projects totaling a value of $93,546,193 during the biennium. The type of work involved in these projects is reflected in the following tabulation:

Highway and Bridge Construction	$92,101,556
Maintenance gravel stockpiles	1,247,501
Maintenance—Painting	31,472
Maintenance—Miscellaneous	54,723
Right-of-Way Fences (Miscellaneous)	110,941
	$93,546,193

Construction during this biennium embraced some of Montana's most spectacular highway routes. The Homestake and Pipestone Pass projects, constructed at nearly $1,000,000 per mile, join each other at 6100 feet above sea level near the apex of the Continental Divide; thus, completing the highway link stretching eastward to Whitehall from Butte. This Interstate Route traverses one of nature's most rugged sections of virgin terrain which, prior to construction, was almost totally impassable except by "shanks mare". At one point the freeway, utilizing a 150 foot high rock embankment, crosses Pipestone Creek without the usually necessary aid of a bridge or culvert. Mother Nature made this feat possible by so shrouding Pipestone Creek with house-sized granite pinacles that a tunnel could be formed over the Creek with selectives and judicious placement of rock fragments blasted from the adjacent mountain side.

Montana's naturally occuring resources of Lime Rock, crude oil, gravel, ore deposits, timber, clay, grass seeds, to name a few, are utilized to the fullest extent by blending, refining, sizing, shaping and manipulating these materials in combination with other manufactured products to form the ribbons of asphalt and concrete so extremely vital to Montana's expanding economy.

Numerous problems, requiring a combination of technical, administrative and human relation skills for their solution are constantly bombarding the Helena Offices of the Construction and Bridge engineers. These professional engineers are charged with overall responsibility of roadway and bridge construction and effectively administer this chosen obligation through their Helena staffs and the District Engineers.

Two assistant construction engineers, both licensed professionals and a technical specialist possessing a master's degree in soil stabilization, were added to the construction engineers staff to help solve the ever pressing technical and administrative problems. These engineers visit construction projects periodically, giving technical advice on special problems and insuring uniform interpretation and application of specifications. Construction inspector training schools were held during the winters of 1964 and 1965. The Construction Manual is being revised and improved. Instruction manuals have been distributed and general up-dating of the engineering personnel's technical knowledge has been accentuated through seminars specification schools and other training activities.

All contracts awarded were not completed during the biennium. There were 167 projects which had been let to contract during the biennium which were not complete on June 30, 1966. Contract awards for this work totaled $108,045,637. The award value is divided as follows: Interstate, $74,536,620; Primary, $18,267,292; Secondary, $13,241,058; State Maintenance, $188,424; R.O.W. Fencing, $47,638; Miscellaneous—(R-AD, ER & LS), $1,764,605.

Highway and bridge construction projects completed during the biennium totaled a value of $82,061,321. This figure does not include cost of right-of-way or engineering. Tabular summaries of these contracts in order of date of completion are given on the following four pages. Some of these contracts were let prior to this biennium and some were let and completed during the biennium.

The summaries showing projects completed during the biennium show some projects wherein length is a minor consideration. The length shown for fencing, seeding, signing and similar projects is the total length of the project. The actual lengths of fence would normally be about twice the length of the project. The lengths shown for structures includes bridges, overpasses and underpasses. Where dual structures are built, the length shown is an average length measured along the roadway center line.

The length and construction of various types of work is shown below for each of the three major highway systems; and, also, includes miscellaneous construction as indicated:

INTERSTATE SYSTEM

Grade, Pavement and Major Bridges		131.213	miles	$31,579,422
Minor grading and bank protection (Riprap) (Sewer & Str. Plate Pipe Arch Culvert)				40,572
Major Bridges	(A)	24,050.0	feet	12,037,685
Right-of-Way Fencing	(A)			744,134
Signs	(A)			291,259
Seeding	(A)			153,052
Bituminous Seal Coating	(A)	29,496	miles	118,330
Safety Rest Areas				101,737
				$45,066,191

PRIMARY SYSTEM

Grade, Pavement and Major Bridges	(A)	207.379	miles	$18,682,659
Major Bridges	(A)	2,060.46	feet	1,022,724
Base and Pavement	(A)	15.891	miles	265,643
Bituminous Seal Coat	(A)	38.196	miles	325,143
Fence	(A)			16,918
Seeding	(A)	2.684		5,076
Traffic Control	(A)	437.767	miles	522,606
				$20,840,769

SECONDARY SYSTEM

Gravel, Pavement and Major Bridges	(A)	45.852	miles	$ 2,560,606
Major Bridges	(A)	1,461.5	feet	432,063
Gravel and Pavement	(B)	82.712	miles	4,426,454
Grade, Gravel & Bridges	(A)	25.158	miles	1,963,586
Grade and Gravel	(A)	70.402	miles	2,638,666
Bituminous Seal Coat	(A)	60.572	miles	533,364
Grade, Gravel & Signing	(A)	8.592	miles	896,242
Fence	(A)			1,721
Striplate Pipe	(A)			14,538
				$13,467,240

(A) Contracts let for that work only

MISCELLANEOUS

Defense access, state maintenance, landscaping and right-of-way contracts	$ 2,687,121

In addition to the work on the Interstate, Primary, and Secondary Systems, the field construction forces supervised and inspected contracts for right-of-way fence, maintenance stockpiles, building construction, and other miscellaneous work.

The table on Page 39 gives a tabulation of projects constructed under supervision of the Bureau of Public Roads. This work is included here because these roads are a part of the State Highway System.

The columns in the tabulations on the following pages are numbered and some data therein is abbreviated. Cost data is shown to the nearest dollar. Some of the figures in Column 8 are estimated.

Column O shows county, or counties, in which the project is constructed.

Column 1 carries an identification number which is used on the map on Page 29 to show the location of the project. Sometimes several contracts will be shown under one number.

Column 2 shows the various project numbers which are used in all construction and accounting records.

Column 3 gives the length of the project. If it is road work, the length is in miles to three decimal points; if a bridge, the length is in feet. If bridges are included in roadway work then their separate length is shown in parentheses.

Column 4 shows the type or kind of work let to contract. The work descriptions have been abbreviated as explained below:

GD—Grade and Drain
GS—Gravel or Graveled
MB—Major Bridges, Underpasses, Overpasses, etc.
TT—Treated Timber Bridges
CSB—Cement Stablized Base
FC—Fence
TC—Traffic Control
SN—Signs
SI—Signals
SN-D—Signs and Delineation
BST—Light Bituminous Surface Treatment
BRM—Bituminous Road Mix
BPM—Bituminous Plant Mix
BSC—Bituminous Seal Coat
PCP—Portland Cement Concrete Pavement
S—Seeding
SF—Seed and Fertilizer
SL—Signals and Lights
GR—Guard Rail

All bituminous treatments or mixes are a combination of bitumen (road oil) and gravel or crushed rock. "MB", when used alone, means steel and concrete. Major timber bridges are symbolized by "MB(TT)".

Column 5 shows the date of letting—month and year.

Column 6 shows the amount of the contract, as awarded.

Columns 7 shows the date of physical completion of project.

Column 8 shows the final cost of the construction work as paid to the contractor.

The map on Page 29 shows the location of all highway construction projects completed during the biennuim.

Interstate 94

PROJECTS ON INTERSTATE SYSTEM

0	County	1 Ident. Number	2 Project Number		3 Project Length	4 Type of Work	5 Date of Letting	6 Amount of Contract	7 Date Completed	8 Final Contract Amount
	Sweetgrass & Stillwater	1	I 90-7(8)387 U-1 & I IG 90-8(12)388 U1		5.914	GD-GS-BPM-GR	3-62	$ 1,004,665	9-64	$ 985,222
	Sweetgrass & Stillwater	1	I 90-7(8)387 U-3 & I IG 90-8(12)388 U4		.....	FC	3-62	81,017	10-64	81,359
	Stillwater	1	I IC 90-8(12)388 U-2		4.633	GD-GS-BPM-GR	3-62	1,046,792	9-64	993,157
(1)	Silver Bow	2	I IG 15-2(16)126 U-1	(a)	2.554	GD-GSB-PCP-BPM-BSC-GR	5-62	1,826,708	11-64	1,838,411
(2)	Silver Bow	2	I IG 15-2(16)126 U-2	(a)	1796'	MB	5-62	566,922	7-64	564,069
	Silver Bow	2	I IG 15-2(16)126 U-3	(a)	.....	GC	5-62	26,008	4-65	26,259
(3)	Silver Bow	2	I IC 15-2(16)126 U-4		925'	MB	5-62	345,958	7-64	334,728
	Silver Bow	2	I IC 15-2(16)126 U-4		748'	MB	9-62	249,092	10-64	247,964
	Yellowstone	3	I 90-8(11)449		6.434	GD-RPM-GR	9-62	1,663,818	1-65	1,587,976
	Treasure	4	I 94-2(5)55 U-1		6.434	FC	9-62	40,495	11-64	40,379
	Treasure	4	I 94-2(5)55 U-2							
	Teton-Pondera	5	I 15-6(5)311 U-1 & I 15-7(3)312 U-1		10.535	GD-BPM-GR	10-62	1,324,412	7-64	1,299,150
	Teton-Pondera	5	I 15-6(5)311 U-2 & I 15-7(3)312 U-2		10.535	MB	10-62	86,003	7-64	84,079
	Pondera	6	I 15-7(3)312 U-2		346'	MB	10-62	86,003	7-64	84,709
	Missoula	7	I IG 90-2(10)11OU-1		4.291	GD-BPM-GR	10-62	1,519,876	9-64	1,459,264
	Missoula	7	I IC 90-2(10)110 U2		4.291	FC	10-62	41,235	10-64	39,092
	Missoula	7	I IC 90-2(10)110 U-3		1,463.5'	MB	10-62	572,720	7-64	563,066
	Missoula	8	I 90-2(11)114 U-1		4.799	GD-RPM-GR	11-62	2,017,292	9-64	1,938,235
	Missoula	8	I 90-2(11)114 U-1		4.799	FC	11-62	23,742	10-64	23,367
	Gallatin	9	I IC 90-6(9)276		1,358.5'	MB	11-62	472,077	7-64	466,532
(4)	Deer Lodge & Silver Bow	10	I IC 90-4(7)205 U-1	(a)	4.493	GD-CSB-BPM-SN-GR	12-62	1,419,200	10-64	1,384,049
	Deer Lodge & Silver Bow	10	I IC 90-4(7)205 U-2		733'	MB	12-62	313,870	7-64	310,713
	Deer Lodge & Silver Bow	10	I IC 90-4(7)205 U-3		4.493	FC	12-62	24,711	11-64	23,400
	Lewis & Clark	11	I IC 15-4(19)211		1,330'	MB	1-63	407,525	7-64	401,383
(5)	Yellowstone	12	I IC 90-8(17)433 U-1	(a)	5.219	GD-BPM-GR-Weigh Station	1-63	1,924,610	10-64	1,797,102
	Yellowstone	12	I IC 90-8(17)433 U-2		1,328.9'	MB	1-63	525,214	7-64	519,288
	Yellowstone	12	I IC 90-8(17)433 U-3		5.282	FC	1-63	38,985	6-65	42,735
	Treasure	13	I 94-2(6)61 U-1		5.638	GD-BPM-GR-MB (143.0')-MB	1-63	897,745	7-64	892,961
	Treasure	13	I 94-2(6)61 U-2		5.638	FC	1-63	40,997	8-64	41,151
	Toole	14	I 15-8(11)383 U-2		4.483	FC	2-63	33,449	7-64	32,174
	Missoula	15	I 90-2(16)81		1,124.9'	MB	2-63	655,717	9-64	648 788
	Missoula	16	I IC 90-2(18)82		981 5	MB	2-63	1,147,264	12-64	1,120,432
	Missoula	17	I IC 90-2(21)80 U-1		4.328	GD-BPM-SN-GR	3-63	1,666,472	7-65	1,644,868
	Missoula	17	I IG 90-2(21)80 U-2		4.328	FC	3-63	32,394	7-65	30,314
	Teton & Pondera	5	I 15-6(6)311 & I 15-7(4)312		11.565	SN	4-63	15,186	9-64	15,140
	Toole	14	I 15-8(11)383 U-1		4.483	GD-BPM-GR-MB (256.0')	4-63	1,136,044	11-64	1,034,650
	Gallatin	18	I IC 90-6(10)282 U-1		4.971	GD-MB (551.0')	4-63	1,244,469	12-64	1,370,363
	Gallatin	18	I IC 90-6(10)282 U-2		4.971	FC	4-63	30,287	10-64	30,983
	Sweetgrass & Stillwater	1	I 90-7(11)387 & I 90-8(18)388		10.547	SN	4-63	16,937	9-64	16,852
	Beaverhead	19	I 15-1(17)46 U-1		5.337	GD-BPM-SN-GR-	5-63	789,268	10-64	780,416
	Beaverhead	19	I 15-1(17)46 U-2		564'	MB	5-63	277,643	7-64	227,916
	Beaverhead	19	I 15-1(17)46 U-3		5.337	FC	5-63	31,920	10-64	30,223
	Toole	20	I 15-8(14)357 U-1		12.008	GD-BPM-SN-GR	5-63	1,404,811	2-65	1,412,833
	Toole	20	I 15-8(14)357 U-3		12.008	FC	5-63	82,714	9-64	81,774
	Missoula	21	I 90-2(22)108		1,718'	MB	6-63	767,908	5-65	757,794
	Silver Bow	2	I 15-2(19)126		5.751	SN	7-63	154,156	7-65	157,032
	Lewis & Clark	22	I 15-4(20)212 U-1		5.841	GD-BPM-SN-GR	7-63	2,539,164	8-65	2,526,446
	Lewis & Clark	22	I 15-4(20) 212 U-2		5.841	FC	7-63	40,932	8-65	38,046
	Gallatin	9	I IC 90-6(15) 276		10.437	CSB-PCP-SN-GR	7-63	2,148,763	5-65	2,126,198
	Mineral	23	I 90-1(21)67		806.6'	MB	8-63	527,753	7-65	528,919
(6)	Yellowstone	3	I 90-8(19)443 U-1 & I 90-8(25)438	(a)	1.168	SN-GR	9-63	850,313	9-65	807,936
(7)	Yellowstone	3	I 90-8(19)433 U-2	(a)	1.168	FC	9-63	12,223	11-65	11,730
(8)	Dawson	24	I 94-6(7)216 & I 94-6(8)221 U-1		12.764	GD-PBM-SN-GR	7-63	2,539,164	8-65	2,526,446
	Dawson	24	I 94-6(8)221 U-2		12.764	FC	9-63	76,267	10-64	72,196
	Mineral	25	I 90-1(22)71		762.2'	MB	10-63	471,284	7-65	464,822
(9)	Missoula	26	I 90-2(14)105 U-3	(a)	.....	Sewer and Riprap	11-63	10,069	11-64	10,926

PROJECTS ON INTERSTATE SYSTEM

0	1	2		3		4	5	6	7	8
County	Ident. Number	Project Number		Project Length		Type of Work	Date of Letting	Amount of Contract	Date Completed	Final Contract Amount
Gallatin	27	IC 90-6(11)287		326.0'		MB	11-63	116,568	12-64	120,234
Gallatin	20	I 15-8(15)357 & I 15-8(16)383		16.491		S	12-63	33,069	10-64	27,210
Teale	28	I 90-1(25)59		825.8'		MB	12-63	507,567	9-65	508,380
Mineral	29	I 90-4(8)226 U-1		2.837		CD-GS-CSB-PCP-BPM-SN-GR	12-63	1,059,830	11-65	1,065,795
Silver Bow	29	I 90-4(8)226 U-3		254.5'		MB	12-63	63,662	9-64	63,612
Silver Bow	30	I IC 90-1(27)63 U-1 & I 90-1(28)72 U-1	(a)	9.539		GD-GS-BPM-SN-GR	1-64	1,424,536	12-65	1,305,662
(10) Mineral	30	I IC 90-1(27)65 U-2 & I 90-1(28)72 U-2		210.020		FC	1-64	53,410	5-66	50,822
Mineral	31	I 15-4(6)186 U-5 & I 15-4(9)194 U-3	(a)	29.496		BSC	2-64	130,968	8-61	118,330
(11) Lewis & Clark & Gallatin	32	I 90-1(24)51		757.4		MB	2-64	449,455	10-65	169,650
Mineral	33	I IC 90-1(26)66		980.5'		MB	2-64	302,221	6-65	297,032
Mineral	25	I IC 90-1(29)71		189.5'		MB	3-64	89,354	10-64	87,716
Mineral	26	I IC 90-2(14)105 U-2		491.0'		MB	3-64	332,998	11-64	331,728
Missoula	7	I 90-2(20)110		9.180		SN	3-64	16,505	2-65	16,984
Missoula	34	I 94-1(7)50 & I 94-2(7)51	(a)	17.549		SN	3-64	24,759	4-65	24,893
(12) Yellowstone & Treasure	12	I 90-8(24)433	(a)	5.282		SL	1-64	46,782	4-65	19,727
(13) Yellowstone	32	I 90-1(31)54		757.4'		MB	6-64	180,654	6-66	500,978
Mineral	28	I 90-1(32)59		825.8'		MB	6-64	534,213	9-65	529,203
Mineral	35	I IC 15-5(20)273		2.990		GD	6-64	1,141,711	9-65	1,141,711(*)
Cascade	27	I IC 90-6(14)287 U-3		460.5'		MB	6-64	213,148	7-65	214,247
Gallatin	27	I IC 90-6(14)287 U-4		377.5'		MB	6-64	284,446	7-65	280,392
Gallatin	36	I 15-5(25)238		.....		Str. Plate Pipe Arch Culv.	7-64	26,380	11-64	29,616
Cascade	35	I 15-5(22)273		183'		MB	8-64	597,853	5-66	597,853(*)
Cascade	37	I 90-3(12)151 U-3		512'		MB	8-64	363,900	11-65	355,918
Granite	1	I 90-7(13)387 & I 90-8(21)388		10.547		S	8-64	6,489	11-64	6,332
Sweetgrass & Stillwater	34	I 91-1(8)50 & I 94-2(9)51		17.549		S	9-64	37,234	11-64	38,235
Yellowstone & Treasure	38	I 15-6(8)307		0.065		Appr-MB (346')	10-64	217,261	11-65	209,287
Teton	39	I 15-1(20)51 U-3		474'		MB	11-64	219,110	9-65	215,370
Beaverhead	40	IC 90-8(29)395		.....		Structure (removal)	2-65	15,832	6-65	15,692
Stillwater	24	I 94-6(9)221		12.764		S	2-65	4,700	5-65	3,118
Dawson	41	I 15-1(21)46	(a)	5.337		S	4-65	53,438	12-65	50,645
(14) Deer Lodge & Silver Bow	42	I 15-2(21)126		2.235		S				
Deer Lodge & Silver Bow	42	I 115-2(4)126		0.319		S				
Deer Lodge & Silver Bow	43	I 90-4(11)204		4.493		S				
Missoula	7	I 90-2(28)110		9.180		S	4-65	5,428	11-65	4,862
Gallatin	9	I 90-6(19)276		10.720		S	4-65	13,403	12-65	11,851
Yellowstone	12	I 90-8(33)433		5.282		S	4-65	5,742	11-65	4,946
Yellowstone	12	I 90-8(34)443		1.239		S	4-65			4,946
Toole	14	I 15-8(18)387		0.076		SN-SL	6-65	9,667	4-66	10,632
Deer Lodge	44	I 90-4(12)208		.....		Safety Rest Areas	7-65	29,940	11-65	30,970
Dawson	45	I 94-6(11)226		.....		Safety Rest Areas	7-65	19,382	11-65	19,624
Lewis & Clark	46	I 15-4(31)214		.....		Safety Rest Areas	8-65	46,700	6-66	51,143
Missoula	17	I 90-2(30)80		4.702		S	2-66	3,928	4-66	2,853
						TOTALS		$45,897,260		$45,066,191

NOTES:
(*) Estimated amounts.
(a) Represents contracts combined and let together with other projects on the Interstate, Primary and/or Secondary Systems.
(1) Let with I 15-2 126 U-1.
(2) Let with I 15-2 (2) 126 U-2.
(3) Let with I 15-2 (2) 126 U-3.
(4) Let with F-FG 68 (12) U-1.
(5) Let with F 134 (6).
(6) Let with F 228 (19 U-1 & S-SG 192 (4) U-1 1.168 Mi. GD & BPM; 7.305 Mi. Signs.
(7) Let with F 228 (19) U-2 & S-SC 192 (4) U-2.
(8) Signs: 4.2 Miles Extra.
(9) Let with F 219 (18) & S 218 (7).
(10) Let with S 419 (3).
(11) Let with F 191 (19) U-2, S 2 (15) U-2 I 15-4 (12) 207 U-3 & S 90-6 (2) 309 U-2, Also Lake Co.
(12) Let with F 114 (6).
(13) Let with F 134 (7).
(14) Let with F 68 (13).

PROJECTS ON PRIMARY SYSTEM

0	County	1 Ident. Number	2 Project Number		3 Project Length	4 Type of Work	5 Date of Letting	6 Amount of Contract	7 Date Completed	8 Final Contract Amount
	Missoula & Lake	101	F-FC 219 (16) U-1		9.781	GD-GS-BPM-GR	7-62	$ 995,277	7-64	$ 1,072,001
	Glacier	102	F 210 (3), F 227 (5) & F 227 (6)		10.012	GD-GS-BPM (4.280 BPM)	9-62	615,929	9-64	726,091
(1)	Deer Lodge	103	F-FC 68 (12) U-1	(a)	2.643	GD-BPM-SN	12-62	568,913	10-64	581,891
	Judith Basin	104	F 235 (25) & F 235 (31)		11.467	GD-BPM-MB (81.5')	21-62	835,388	7-64	841,776
(2)	Yellowstone	105	F 134 (6)	(a)	0.339	GD-GS-BPM	1-63	50,855	10-64	49,420
(3)	Treasure	106	F 114 (5)	(a)	2.423	GD-GS-BPM	1-63	162,585	7-64	160,065
	Cascade	107	F 176 (7)		5.275	GD-GS-BPM	4-63	351,488	12-64	350,674
	Chouteau	108	F 149 (19) & F 252 (15)		9.834	GD-GS-BPM	5-63	523,234	10-64	529,449
	Gallatin	109	F 200 (4)		5.455	GD-GS-BPM-TT	6-63	471-102	10-64	453,654
	Broadwater	110	F 264 (8)		6.394	GD-GS-BPM	7-63	697,673	9-64	686,518
(4)	Cascade	111	U 277 (6) & U 388 (6)		2.591	SN-SI-Street Widening	7-63	179,611	7-64	195,187
	Musselshell	112	F 33 (6) & F 108 (9)		8.039	GD-GS-BPM	8-63	1,126,483	6-65	1,279,389
	Missoula, Lake & Flathead	113	F 9999(1)		119,000	SN	8-63	29,356	10-64	31,271
(5)	Yellowstone	111	F 228 (19) U-1	(a)	0.522	GD-BPM-SN	9-63	212,989	9-65	207,370
(6)	Yellowstone	114	F 228 (19) U-2	(a)	0.522	FC	9-63	13,876	11-65	13,657
	Park	115	F 217 (1)		9.177	GD-GS-BPM-GR	9-63	1,025,000	8-65	1,079,457
	Yellowstone	114	F 228 (21)		1.466	SN-SI	10-63	68,225	9-64	67,252
	Cascade	132	F 149 (20), F 395 (3) & F 395 (5)		1.495	SN-SI	11-63	52,070	10-64	54,758
	Blaine	116	F 152 (7) U-2		213'	MB	10-63	158,340	9-64	184,794
	Lake & Flathead	117	F 191 (24)		5.930	GD-GS-BPM	10-63	1,377,697	12-64	1,514,418
	McCone & Dawson	118	F 246 (13)		9.203	GD-GS-BPM	10-63	703,811	6-65	690,348
(7)	Missoula	119	F 219 (18)	(a)	0.234	GD-GS-BPM-SN-MB (65')	11-63	143,768	11-64	145,611
	Dawson	120	F 245 (16)		5.272	GD-GS-BPM-MB (111.5')	11-63	455,184	8-64	452,795
(8)	Flathead	117	F 191 (19) U-2	(a)	5.548	BSC	2-64	13,169	8-64	12,286
	Lewis & Clark	121	F 50 (10) & F 267 (13)		9.198	GS-BPM	2-64	243,944	8-64	227,818
(9)	Custer	122	F 157 (16) U-3	(a)	5.000	BSC	2-64	10,159	7-64	7,797
(10)	Lewis & Clark	123	F 238 (8) U-3	(a)	8.476	BSC	2-64	20,313	8-64	18,236
(11)	Treasure	106	F 114 (6)	(a)	2.423	SN	3-64	1,849	4-65	1,834
(12)	Yellowstone	105	F 134 (7)	(a)	0.661	SL	4-64	3,923	4-65	3,807
	Meagher	124	F 8 (11) & F 239 (13)	(a)	7.355	GD-GS-BPM-MB(TT) (25')	4-64	782,453	7-65	755,830
	Toole	125	F 154 (6) & F 220 (8)		7.491	GD-GS-BPM	4-64	586,763	10-65	623,326
	Missoula-Lake	119	F 219 20		9.781	BSC	5-64	35,586	9-64	32,388
	Carter	126	F 262 (14)		9.551	GD-GS-BPM-MB (243')	5-64	823,493	7-65	809,959
	Wibaux	127	F 2 (17)		24.383	GS-BPM	6-64	394,532	7-65	381,851
	Fergus	128	F 27 (6) & F 28 (5)		6.059	GD-GS-BPM	6-64	590,672	7-65	578,508
	Deer Lodge & Beaverhead	129	F 43 (17)		15.891	BPM	6-63	273,294	7-65	265,643
	Yellowstone	130	F 53 (13) & F 230 (9)		2.117	GD-GS-BPM	6-64	642,885	10-65	925,262
	Powell	131	F 249 (16)		7.362	GS-BPM	6-64	204,258	10-64	180,584
	Cascade	132	U-FG 395 (6) U-2		0.172	FC	6-64	3,287	10-64	3,261
	Wheatland	133	F 115 (14)		8.628	GD-GS-BPM-SL	7-64	788,785	12-65	789,320
	Sheridan & Daniels	134	F 193 (16) & F 251 (11)		9.160	GD-GS-BPM	7-64	695,074	1-66	696,256
	Cascade	132	F-149 (21), F 180 (7) & F 395 (9)		.....	SL	8-64	63,741	7-65	60,895
	Granite	135	F 203 (8) U-2		652'	MB	8-64	232,829	5-66	232,829(*)
	Valley	136	F 148 (8)		669'	MB	9-64	403,723	6-66	396,730
	Flathead	137	F 260 (10)		0.521	GD-GS-BRO & Support Wall	9-64	293,680	11-65	339,577

PROJECTS ON PRIMARY SYSTEM

0	1	2	3	4	5	6	7	8
County	Ident. Number	Project Number	Project Length	Type of Work	Date of Letting	Amount of Contract	Date Completed	Final Contract Amount
			121.5'	MB	12-64	59,437	6-65	63,374
Missoula	138	F 215 (12) U-1	11.762	GD-GS-BPM	2-65	991,660	3-66	959,802
Custer	139	F 86 (24)	308.014	SN-D	2-65	96,768	4-66	99,956
(#)	144	F 9999 (2)	(a) 2.684	S	4-65	6,444	12-65	5,076
(13) Deer Lodge	103	F 68 (13)	(a) 335'	MB	4-65	82,099	11-65	81,294
(14) Pondera	140	F 190 (6) U-2						
			(a) 1.792	GD-GS-BPM-SN	4-65	523,109	1-66	593,639
	141	U 222 (16)	49,96'	MB	4-65	63,979	5-66	63,503
(15) Gallatin	142	FC 257 (17)	9.391	BSC	6-65	257,264	10-65	254,436
Flathead	143	F 157 (22)	2.117	SN	7-65	7,558	11-65	7,646
Garfield	130	F 53 (14) & F 230 (10)						
Yellowstone				TOTAL		$20,017,584		$20,840,769

NOTES:

(°) Estimated amounts.

(a) Represents contracts combined and let together with other projects on the Interstate, Primary and/or Secondary Systems.

(#) Powell, Lewis & Clark, Jefferson, Broadwater, Meagher, Wheatland, Golden Valley, Musselshell, & Rosebud Counties.

(1) Let with I 90-4 (7) 205 U-1.

(2) Let with I 90-8 (17) 433 U-1, 4 Lane Highway 0.122 Miles.

(3) Let with I 94-2 (6) 61 U-1.

(4) 10th Avenue South—Great Falls.

(5) Let with I 90-8 (19)433 U-1 & I 90-8 (25) 438 & S 192 (4) U-1

(6) Let with I 90-8 (19) 433 U-2 & S-SG 192 (4) U-2.

(7) Let with I 90-2 (14) 105 U-3 & S 218 (7).

(8) Let with I 15-4 (6) 186 U-5, I 15-4 (9) 194 U-3, I 15-4 (12) 207 U-3, I 90-6 (2) 309 U-2 & S 2 (15) U-2

(9) Let with S 68(5) U-2 & 259 (2) U-2.

(10) Let with S 131 (13) U-2 & S 339 (9) U-2.

(11) Let with I 94-1 (7) 50 & I 94-2 (7) 51.

(12) Let with I 90-8 (24) 433.

(13) Let with I 15-1 (21) 46, I 15-2 (21) 126 & I 115-2 (4) 126.

(14) Let with ER 57 (3) (F 190).

(15) Let with S 243 (5).

PROJECTS ON SECONDARY SYSTEM

0	County	1 Ident. Number	2 Project Number	3 Project Length	4 Type of Work	5 Date of Letting	6 Amount of Contract	7 Date Completed	8 Final Contract Amount
	Yellowstone	201	S 192 (3)	350'	MB	9-62	$ 90,769	8-64	$ 90,716
	Park	202	S 370 (15)	6.736	GD-CSB-BPM	10-62	386,262	10-64	370,149
	Flathead & Lake	203	S 65 (6)	4.864	GD-GS-MB (224.5')	12-62	608,969	7-64	624,737
	Stillwater	204	S 129 (8)	7.003	GD-BPM	3-63	485,267	7-64	459,968
	Chouteau	205	S 290 (16) & S 307 (12)	10.252	GD-BPM-MB (158')	3-63	653,027	8-64	319,330
	Richland	206	S 361 (12)	6.565	GD-BPM	3-63	406,498	8-64	400,433
(1)	Judith Basin	207	S 121 (4)	11.616	GD-GS-BPM	4-63	277,105	8-64	285,672
	Big Horn	208	S 322 (7)	6.308	GD-BPM	5-63	417,700	7-64	395,495
	Roosevelt	209	S 200 (5)	13.153	GD-BPM	6-63	224,581	7-64	239,291
	Valley	210	S 368 (17)	8.673	BPM	6-63	279,871	8-64	276,727
	Richland	211	S 389 (3)	2.677	GD-BPM-CSB	7-63	257,407	8-64	251,496
	Fallon	212	S 401 (3) U-1	8.231	GD-GS	7-63	198,905	7-64	191,988
	Fallon	212	S 401 (3) U-2	263'	MB	7-63	82,962	6-64	81,595
	Carter	213	S 318(4), S 347(11) & FHP 55-1(1)	8.194	GD-BPM	8-63	746 576	10-65	703,077
	Dawson	214	S 359 (7)	2.959	GD-BPM-TT (50')	8-63	276,655	8-64	277,405
	Missoula	215	S 407 (2)	0.263	GD-GS-MB (457')	8-63	252,394	10-64	255,867
(2)	Yellowstone	216	S-SG 192 (4) U-1	(a) 0.958	GD-BPM-SN	9-63	283,954	9-65	284,133
(3)	Yellowstone	216	S 192 (4) U-2	(a) 0.958	FC	9-63	2,025	11-65	1,721
	Blaine	217	S 311 (5)	0.891	GD-BPM-MB (213')	9-63	220,723	9-64	210,074
	Glacier	218	S 316 (11)	7.559	GD-BPM	10-63	416,917	8-65	404,516
(4)	Missoula	219	S 218 (7)	(a) 0.982	GD-BPM-SI	11-63	97,467	11-64	97,795
	Hill	220	S 301 (13)	4.990	GD-BPM	11-63	212,846	7-65	212,735
	Chouteau	221	S 307 (14)	6.073	GP-BPM—Widen Bridges	11-63	337,958	8-65	335,980
	Sheridan	222	S 417 (3)	7.292	GD-BPM	11-63	352,566	8-65	358,222
	Wheatland	223	S 18 (6)	7.341	GD-GS-BPM-MB (111.5')	12-63	343,721	8-65	334,647
	Yellowstone	201	S 192 (7)	3.233	GD-GS-BPM	12-63	147,459	5-65	140,107
	Granite	224	S 413 (3) & S 414 (3)	4.361	GD-GS-BPM-MB (101.5')	12-63	333,209	8-65	170,173
	Roosevelt	225	S 418 (3)	0.747	GD-GS-MB (244.5')	12-63	149,404	9-64	150,267
(5)	Mineral	226	S 419 (3)	(a) 0.894	GD-GS-BPM	1-64	85,373	12-65	79,256
	Roosevelt	227	S 15 (10)	15.005	BPM	1-64	220,741	8-64	220,902
(6)	Lewis & Clark	228	S 2 (15) U-2	(a) 1.824	BSC	2-64	4,090	8-64	3,798
(7)	Fergus & Rosebud	229	S 68 (5) U-2 & S 259 (2) U-2	(a) 22.044	BSC	2-64	41,825	7-64	19,646
(8)	Pondera & Liberty	230	S 131 (3) U-2 & S 339 (9) U-2	(a) 13.026	BSC	2-64	27,191	8-64	12,291
	Yellowstone	201	SG 192 (5)	379'	MB	3-64	120,206	6-65	120,004
	Jefferson	231	S 9 (10)	3.662	G-BPM	3-64	98,378	6-65	95,919
	Pondera	232	S 107 (9)	7.049	GD-GS-BPM	3-64	367,695	8-65	376,442
	Missoula	219	S-SG 218 (2)	0.585	GD-GS-BPM-MB (110')	3-64	429,759	10-65	429,009
	Ravalli	233	S 400 (3)	6.432	G	3-64	505,813	4-65	511,674
	Gallatin	234	S 426 (3)	198'	MB	3-64	78,183	11-64	77,172
	McCone	235	S 238 (4) & S 411 (3)	7.917	GD-GS	6-64	267,402	11-64	198,632
	Sheridan	236	S 415 (3)	6.041	GD-GS-MB (91.5')	6-64	186,770	8-65	190,957
	Hill	237	US 70 (4)	0.732	GD-GS-BPM	6-64	244,568	9-65	253,171
	Carter	238	S 194 (4)	0.338	GD-GS-MB (224.5')	6-64	117,818	6-65	114,227
	Custer	239	S 388 (5)	9.505	GD-GS	6-64	395 668	6-65	384,825
	Ravalli	233	S 400 (4)	6.432	GS-BPM	6-64	211,775	8-65	204,998
	Blaine	240	S 340 (8)	4.351	GD-GS-BPM	7-64	260 526	10-65	249,729
	Garfield	241	S 264 (1)		Structural Plate Pipe	9-64	15,097	6-65	14,538
	Gallatin	234	S 426 (4)	0.238	GD-GS	10-64	42 958	6-65	41,671
	Beaverhead	242	S 35 (13)	10.215	GD	11-64	377,763	10-65	377,763 (9)
	Ravalli	243	S 328 (2)	173.0'	MB	2-65	14,460	4-65	14,460

PROJECTS ON SECONDARY SYSTEM

0	1	2		3	4	5	6	7	8
County	Ident. Number	Project Number		Project Length	Type of Work	Date of Letting	Amount of Contract	Date Completed	Final Contract Amount
			(a)	0.561	GD-GS, BPM	4-65	61,064	1-66	57,297
(9) Gallatin	244	S 243 (5)		7.012	GD-GS-SN	5-65	514,314	6-66	514,314(*)
Musselshell	245	S 48 (5)		9.214	GD-GS	6-65	207,772	12-65	205,349
Prairie	246	S 302 (17)		4.957	GD-GS	6-65	182,164	12-65	182,486
Powder River	247	S 326 (7)		4.754	GD	8-65	198,659	5-66	168,072
Broadwater	248	S 6 (7)							
				8.939	GD-GS	8-65	398,536	6-66	376,204
Garfield	249	S 42 (6)		101.5	MB	8-65	52,251	5-66	48,116
Dawson	214	S 359 (9)							
					TOTAL		$14,272,017		$13,467,240

NOTES:

(*) Estimated amounts.

(a) Represents contracts combined and let together with other projects on the Interstate, Primary and/or Secondary Systems

(1) City Funds—$6,813.00 not included.

(2) Let with I 90-8 (19) 443 U-1, I 90-8 (19) 438 U-1 & F 228 (19) U-1.

(3) Let with I 90-8 (19) 443 U-2 & F 228 (19) U-2.

(4) Let with I 90 (14) 105 U-3 & F 219 (18).

(5) Let with I 90-1 (27) 65 U-1 & I 90 (28) 72 U-1.

(6) Let with I 15-4 (16) 186 U-5, I 15-4 (9) 194 U-3.

(7) Let with F 157 (16).

(8) Let with F 238 (8) U-3

(9) Let with U 222 (16).

Interstate 90

Primary U.S. 93

Secondary 209

FOREST HIGHWAY SYSTEM PROJECTS

The U. S. Bureau of Public Roads is responsible for the construction of those portions of the State Highway System which lie within National Forests. These roads, aside from right-of-way, are constructed entirely with Federal Funds, maintenance is done by the State. The following tabulation details Montana's forest highway projects that were awarded during the biennium and not completed, projects started before July 1, 1964 and completed during the biennium and projects started and completed during the biennium.

CONTRACTS AWARDED DURING BIENNIUM — NOT COMPLETED AS OF JUNE 30, 1966

Project		Location	Length	Type Work	Award Date	Contract Amount	Final Contract Cost (Estimate)	Estimated Completion Date
ERFO 41 (1)	401	On State Route 499, 7-1 miles easterly from junction with State Route 287, easterly 15.3 miles to junction with U.S. Route 191 thence southerly 1.2 miles on U.S. 191 toward West Yellowstone.	16.5	Grade, base, bit. plt. mix paving	October 1963	$1,301,453.28	$1,232,824.00	August 1966
ERFO 44 (1) FHP 13-2(2)	402 402	U.S. 2, West Glacier-Essex	12.3	Grade, base, bit. plt. mix surf.	June 1965	$1,340,148.80	$1,378,487.00	September 1966
ERFO 44 (2)	403	U.S. 2, Essex-Summit	12.2	Grade, base, bit. plt. mix, bridges	August 1965	$1,711,109.80	$1,728,572.00	October 1966
FHP 9-1(3)	404	Paradise-St. Regis Cutoff	3.1	Grading and special sub-base	October 1965	$ 364,237.00	$ 374,227.00	July 1966
FHP 16-1(1)	405	SH 38, west forest boundary-east	4.5	Grade, base	December 1965	$ 363,930.00	$ 371,130.00	September 1966
FHP 51-2(1)	406	5 miles north from Otter-north 3.2 miles	3.2	Grade, base, bit. surf. treat.	December 1965	$ 191,289.00	$ 205,108.00	October 1966
FHP 57-1(1)	407	Begins approximately 10 miles easterly of Libby, Montana, and extends easterly 4.528 miles along the river bank	4.5	Grade, base, bit. plt. mix surf., bridge	June 1966	$1,663,354.25	$1,663,354.25	October 1967

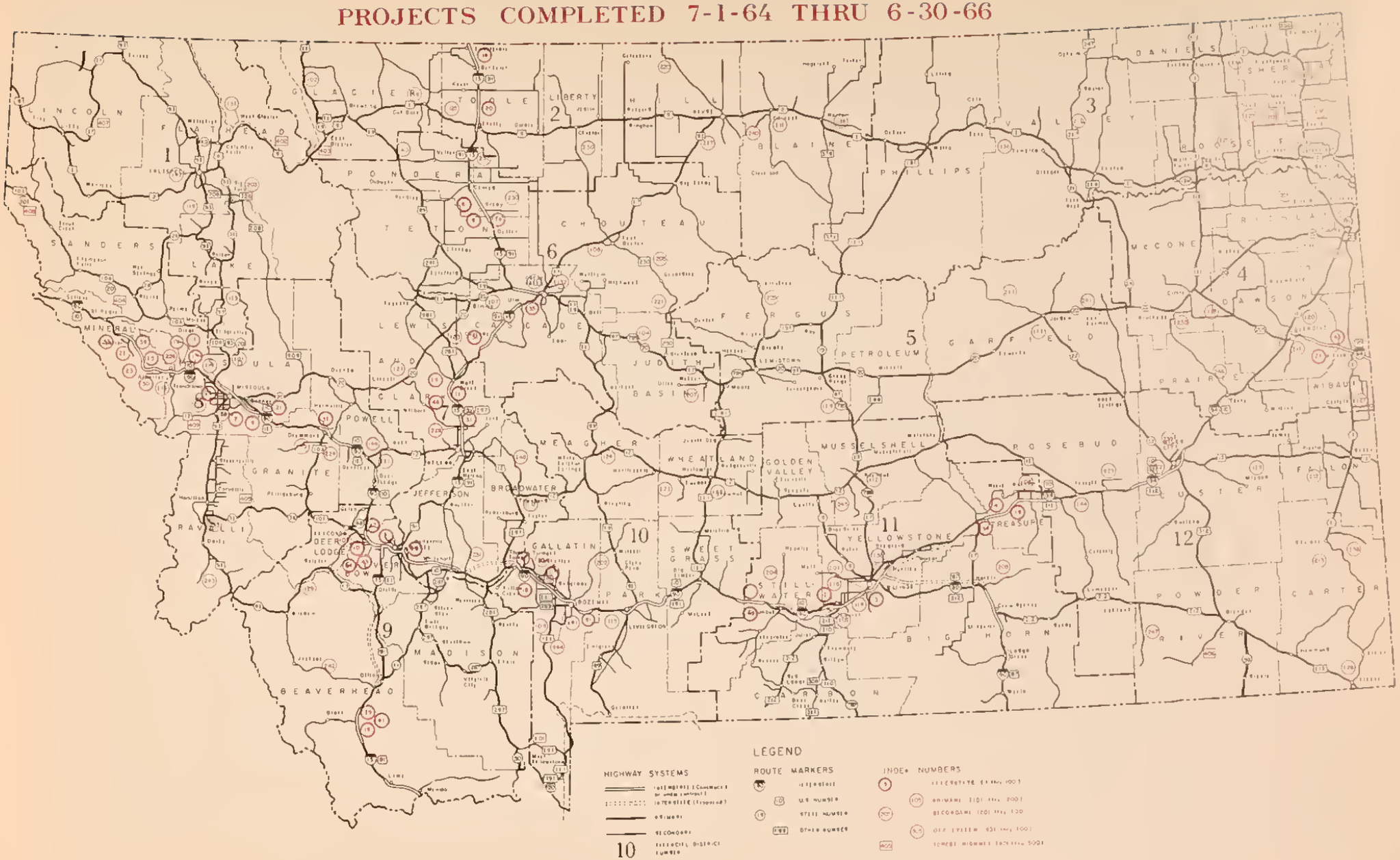
PROJECTS STARTED PRIOR TO JULY 1, 1964, AND COMPLETED DURING BIENNIUM

Project		Location	Length	Type Work	Award Date	Contract Amount	Final Contract Cost (Estimate)	Estimated Completion Date
FHP 6-2(1) 3(1) FD 2730	408	On U.S. 10A, Clark Fork Highway, Noxon-Thompson Falls	16.7	Bit. plt. mix. surf.	April 1964	$ 384,874.76	$ 390,421.00	August 1964
FHP 11-1(2)	409	On U.S. 12 from Idaho Line to Jct. U.S. 93 at Lolo	32.5	Bit. plt. mix	January 1964	$ 699,456.06	$ 701,941.00	December 1964

PROJECTS STARTED AND COMPLETED DURING BIENNIUM (JULY 1, 1964 - JUNE 30, 1966)

Project		Location	Length	Type Work	Award Date	Contract Amount	Final Contract Cost (Estimate)	Estimated Completion Date
FHP 9-1(2)	404	On State Secondary Route 461, 8 miles east of St. Regis	3.8	Grade and special sub-base	March 1965	$ 320,866.00	$ 409,186.00	April 1966

PROJECTS COMPLETED 7-1-64 THRU 6-30-66



Interstate 15 Between
Helena and Wolf Creek

RIGHT-OF-WAY REPORT

The primary function of the Right of Way Division is the acquisition of lands necessary for the construction of highways and their maintenance and administration. Many duties must be performed and intricate problems solved prior and subsequent to the actual acquisition of right of way parcels.

The primary, basic procedures in right of way acquisition and administration have not changed in the past several years. Minor procedures within the right of way acquisition structure are subject to constant revision to meet economic and legal changes and to comply with changing construction and use techniques.

As soon as the definite location of any highway project has been determined a memorandum of title for each land ownership affected by the new highway project is purchased from an abstracter in the project vicinity. A preliminary set of right of way plans, or maps, is prepared as soon as sufficient engineering and ownership data is available. These maps and any additional pertinent information are furnished to our appraiser, either staff or fee, so that an appraisal of the market value of the land required and damage occasioned by the highway construction may be made.

When the road design has enabled the determination of a firm alignment and right of way widths the plans for interstate and primary projects are submitted to the Bureau of Public Roads for examination and approval. Right of way acquisition with federal monies participating in the cost can start with the Bureau of Public Roads' approval. Bureau of Public Roads' approval of secondary highway projects prior to right of way acquisition is not required. Right of way plans for interstate and primary highway projects are filed with the appropriate County Clerk and Recorder as soon as possible after Bureau of Public Roads' approval. Right of way plans for secondary highway projects are filed with the appropriate County Clerk and Recorder as soon as they are prepared.

All right of way acquisitions are started by negotiation based upon appraisals prepared by either staff or fee appraisers and approved by reviewing appraisers. Appraisals are made within the purview of guidelines and procedures issued by the Bureau of Public Roads. These guidelines and procedures are concerned with the methods of appraising and do not attempt to establish specific values. Each appraisal is examined by a reviewing appraiser to ensure proper appraisal methods. No adjustment of values is made unless it can be substantiated by the reviewing appraiser. Only staff personnel are used to acquire rights of way by negotiation.

If the landowner is unwilling to accept the State's offer for the right of way required it is necessary to institute an action in eminent domain. All information prepared and compiled by the Right of Way Division pertaining to such a right of way parcel is made available to the Legal Division to effect acquisition through the courts.

With the exception of State and Federally owned lands, negotiated acquisitions are accomplished in the Highway Administrative Districts. Documents conveying all negotiated right of way parcels are submitted to Helena for examination and approval by the Chief Reviewing Negotiator and the Chief Right of Way Agent.

Deeds of conveyance and other documents are examined, certificates of survey and maps of definite location are prepared and forwarded to the appropriate County Clerk and Recorder for recording. The deeds and other documents are returned to the Right of Way Division after recording and are then deposited with the Secretary of State.

In order that all Highway Department personnel engaged in construction and maintenance activities are aware of the Department's obligation to the landowner, copies of the right of way negotiation report are distributed to the Administrative Districts and to other Headquarters Divisions. All documents and correspondence pertaining to right of way acquisition are photographed on microfilm for future use and record security. Bureau of Public Roads' regulations require the original or source documents be retained and made available for examination for a period of three years after final payment of participating federal funds.

Buildings and other improvements located on lands acquired for highway construction are sold to recover a portion of the right of way costs. Also small tracts of land in excess of final right of way requirements are sold. Monies received from such sales are credited to the respective highway projects with the Bureau of Public Roads participating in the normal percentage. These monies then again become available to the State for right of way acquisition or additional highway construction.

The following figures are representative of right of way acquisition during the past biennium:

System	No. Parcels	No. Acres	Cost of Land	Avg. Cost Per Parcel	Avg. Cost Per Acre
Interstate	926	9,276	$6,001,141.00	$6,480.00	$646.00
Primary	892	3,010	2,151,679.00	2,412.00	714.00
Secondary	479	2,045	566,787.00	1,183.00	277.00
Emergency	28	69	8,608.00	307.00	124.00
(All Systems) TOTAL	2325	14,400	$8,728,217.00	$3,754.00	$606.00

The average cost of a parcel of right of way acquired by negotiation was $3,070.00. The average cost of a parcel of right of way acquired through eminent domain was $11,481.00.

Costs shown in these tabulations are comprised of all direct payments for land, improvements, damage and fence and do not include administrative costs or court costs.

During this biennium $119,700.00 was recovered from the sale of improvements, excess land and salvaged utilities materials.

Negotiated acquisition of all right of way parcels could not be completed because of differences of opinion concerning values, location, or construction features. These parcels were referred to our Legal Division for acquisition through eminent domain proceedings. 189 parcels were acquired this biennium by court order and 302 parcels at the end of the biennium were in litigation. 8.8% of right of way parcels acquired this biennium were secured by litigation. 77% of all parcels acquired by court order were for interstate projects. It is estimated by our Legal Division that it costs $1,900.00 to pursue an action in eminent domain through a jury trial. The public was therefore required to pay in excess of $300,000.00 in addition to the actual cost of the right of way to acquire land by litigation.

The Utilities Section is an important part of the Right of Way Division. In constructing many highway projects it is necessary to relocate the facilities of public utility companies. Telephone and electric power trans-

mission lines, oil and gas pipelines and, in some instances, sections of railroad lines must be removed from the new highway right of way to a location which will not interfere with highway construction and use. Agreements to accomplish the relocation are made between the utilities companies and the State Highway Commission. These agreements must be approved by the Bureau of Public Roads prior to the beginning of the relocation. Before an agreement can be reached it is necessary to make a detailed study of the road plans, the type and location of the facility to be removed, and a field inspection.

During this biennial period the Utilities Section concluded 359 such agreements involving agreement costs of $3,386,400.00. The public's share of this cost was $3,017,112.00.

It is attempted on all projects to schedule utility relocations as far as possible in advance of highway construction to preclude interference between these operations.

The highway beautification program which includes sign removals, junkyard screening and scenic development will have influence on both the acquisition of right of way and the disposal of excess land. The full impact of this program on the Right of Way Division is not yet known because of the apparent conflict of the Federal Act and existing State statutes. Legal and financial problems must be solved before firm right of way procedures for the program can be formulated. Portions of the beautification program which are not in legal or financial conflict with the State are being implemented.

FINANCIAL REPORT

Receipts and expenditures during the 1965-1966 biennium reached an all-time high. Receipts for the biennium amounted to $159,836,341.20, and expenditures amounted to $161,819,030.27. The excess of expenditures over receipts was financed through a reduction in fund balances existing at the opening and close of the biennium.

The receipts were derived from the following sources:

TOTAL RECEIPTS

Source	Amount	Per Cent of Total
State fees and taxes	$ 48,750,823	
Less: Legislative appropriations	—550,125	
Net to State Highway Commission	$ 48,200,698	30.16
Federal Aid	$108,928,970	68.15
Other Federal funds	2,082,895	1.30
Subtotal—Federal funds	$111,011,865	69.45
Miscellaneous	623,778	0.39
TOTAL RECEIPTS	$159,836,341	100.00

STATE-SOURCE RECEIPTS

Source	Amount	Per Cent of Total
Motor fuel taxes	$ 39,687,716	81.41
Gross vehicle weight taxes	8,255,791	16.94
Other motor vehicle taxes	468,878	0.96
Subtotal—Highway use taxes	$ 48,412,385	99.31
Miscellaneous	338,438	0.69
TOTAL RECEIPTS FROM STATE SOURCES	$ 48,750,823	100.00

Expenditures were made for the following purposes:

EXPENDITURES

Purpose	Amount	Per Cent of Total
Construction	$132,949,658	82.16
Maintenance	16,240,774	10.04
Administration	6,464,239	3.99
Capital items	2,683,696	1.66
Miscellaneous	3,480,663	2.15
TOTAL EXPENDITURES	$161,819,030	100.00

The State Highway Commission operates through two basic accounts: The State Highway Account (213800) in the Earmarked Revenue Fund and the State Highway Trust Account (410410) in the Federal and Private Revenue Fund. Amounts received from the Federal government, cities and counties are deposited in the State Highway Trust Account, together with amounts of State funds required to finance the State's share of construction contracts. Payments from this fund are made to contractors, railroads and public utilities. Receipts from State sources and other miscellaneous sources are deposited in the State Highway Account. Payments for all items, except those related to construction, are paid from this account.

Federal Aid plays an important part in the state highway construction program. At two-year intervals, Congress appropriates money to finance the nationwide Federal Aid construction program. This money is apportioned to the various states under established formulas. The money may be used for right-of-way acquisition, preliminary engineering, construction engineering and construction, with matching funds to be provided by the states at specified ratios. In Montana, the Federal participating rate is about 91% for the Interstate funds and 57% for the Primary, Secondary and Urban funds. The overall matching ratio is about 75% Federal funds and 25% State funds. The Federal funds may **not** be used for administration or maintenance of the highways; these costs must be financed entirely from State funds.

When Federal Aid projects are programmed, Federal funds are obligated for these projects; however, actual payment to the State Highway Commission is not made until work has actually been performed and costs incurred. This procedure makes it necessary for the State Highway Commission to finance both the State and the Federal shares of costs incurred until such time as periodic billings can be prepared and submitted to the Bureau of Public Roads and payment therefor can be received. A current billing and concurrent audit procedure, which has been approved by the Bureau of Public Roads, permits the State Highway Commission to receive reimbursement from the Bureau of Public Roads within a short time after the billing is made, and this procedure minimizes the length of time that the State Highway Commission must finance the Bureau of Public Roads' share of the expenditures. If any errors occur in the current billing procedure, they are detected when the final voucher is submitted to the Bureau of Public Roads and audited, and any necessary adjustments are made at that time.

The great developments which have taken place in the overall highway program are illustrated by comparing receipts and expenditures for fiscal years 1965 and 1966 with similar items during 1956, the year when the expanded Interstate System construction program was initiated.

COMPARISON OF RECEIPTS AND EXPENDITURES FOR FISCAL YEARS 1956, 1965 AND 1966

Category	FY 1956	FY 1965	FY 1966	Per Cent Increase 1956-1966
RECEIPTS				
Motor fuel tax	$17,157,899	$19,323,334	$20,364,382	18.68
Gross vehicle weight tax	2,698,084	4,005,876	4,249,915	57.51
Other motor vehicle fees	113,442	216,739	252,139	122.26
Subtotal—Highway User Fees	$19,969,425	$23,545,949	$24,866,436	24.52
Federal funds	9,960,432	59,013,719	51,998,146	422.05
Miscellaneous	289,356	363,289	598,927	107.98
Subtotal—Receipts	$30,219,213	$82,922,957	$77,463,509	156.33
Less: Legislative appropriations	-126,624	-226,125	-324.000	155.87
Net to State Highway Commission	$30,092,589	$82,696,832	$77,139,509	156.34
EXPENDITURES				
Construction	$18,820,440	$67,640,889	$65,308,769	247.01
Maintenance	5,825,809	7,997,719	8,243,055	41.49
Administration	1,493,937	2,992,372	3,471,867	132.39
Capital items	527,106	1,361,225	1,322,471	150.89
Miscellaneous	2,485,600	2,129,235	1,351,428	(45.63)
Total Expenditures	$29,152,892	$82,121,440	$79,697,590	173.38

(Continued on Page 36)

OPENING FUND BALANCES AND RECEIPTS

Category	FY 1965	FY 1966	1965-1966 Biennium
FUND BALANCEES AS OF JULY 1			
State Highway Fund—213800	$ 8,347,537.35	$ 4,645,366.69	$ 8,347,537.35
State Highway Trust Fund—410410	645,050.62	4,922,614.03	645,050.62
Total Fund Balances	$ 8,992,587.97	$ 9,567,980.72	$ 8,992,587.97
RECEIPTS—STATE SOURCES			
Motor Fuel Taxes	$19,323,333.62	$20,364,382.16	$ 39,687,715.78
U. S. Government Permits and Leases	1,012,593.56	1,070,301.60	2,082,895.16
Gross Vehicle Weight Fees	4,005,875.88	4,249,915.45	8,255,791.33
New Auto Caravan Taxes	6,227.25	7,063.25	13,290.50
Size and Weight Fees	123,122.00	144,828.00	267,950.00
Proportional Licensing Fees	86,611.00	99,104.00	185,715.00
Violations—Special Fuel Permits	779.00	1,144.00	1,923.00
Miscellaneous Income	6,059.10	332,378.35	338,437.45
Gross Receipts—State Sources	$24,564,601.41	$26,269,116.81	$ 50,833,718.22
Less: Appropriations by Legislature	-226,125.00	-324,000.00	-550,125.00
Net Receipts—State Sources	$24,338,476.41	$25,945,116.81	$ 50,283,593.22
RECEIPTS—FEDERAL AID			
Preliminary Engineering	$ 3,292,211.80	$ 5,418,344.46	$ 8,710,556.26
Right-of-Way	7,518,907.52	3,869,684.92	11,388,592.44
Utility Relocation	1,309,210.40	2,114,290.40	3,423,500.80
Construction Engineering	3,587,101.95	4,172,698.84	7,759,800.79
Construction	41,735,791.29	34,869,583.39	76,605,374.68
Planning Survey	557,902.09	483,242.58	1,041,144.67
Total Receipts—Federal Aid	$58,001,125.05	$50,927,844.59	$108,928,969.64
MISCELLANEOUS RECEIPTS			
Counties, Cities, Railroad, etc.	$ 357,230.74	$ 266,547.61	$ 623,778.34
Grand Total Receipts	$82,696,832.19	$77,139,509.01	$159,836,341.20
TOTAL FUNDS AVAILABLE	$91,689,420.16	$86,707,489.73	$168,828,929.17

EXPENDITURES

EXPENDITURES AND CLOSING FUND BALANCES

Category	FY 1965	FY 1966	1965-1966 Biennium
CONSTRUCTION, MAINTENANCE AND ADMINISTRATION EXPENDITURES			
Preliminary Engineering	$ 3,461,684.19	$ 3,789,298.96	$ 7,250,983.15
Right-of-Way	7,608,324.09	4,826,482.92	12,434,807.01
Utility Relocation	1,869,428.69	1,781,592.56	3,651,021.25
Construction Supervision	4,127,734.47	4,886,643.17	9,014,377.64
Construction Contracts	50,573,716.92	50,024,750.97	100,598,467.89
Planning Survey	715,159.55	732,524.75	1,447,684.30
Maintenance of Highways	7,997,719.20	8,243,054.64	16,240,773.84
Maintenance Supervision	346,932.28	584,815.30	931,747.58
General Administration	977,588.23	922,926.33	1,900,514.56
Highway Commission	35,576.79	27,073.85	62,650.64
State Paid Construction Supervision	1,632,274.67	1,472,413.40	3,104,688.07
State Advertising	125,904.41	149,942.61	275,847.02
Gross Vehicle Weight Tax Collection	163,808.28	190,267.46	354,075.74
Regulation of Vehicle Size and Weight	350,188.72	300,712.12	650,900.84
Radio Repair and Operation	76,249.19	88,287.20	164,536.39
Highway Maps	69,421.74	79,289.36	148,711.10
Miscellaneous Expense	256,581.62	61,946.63	318,528.25
Roadside Rest Areas	118,209.18	93,792.66	212,001.84
Flood Damage Repair	167,093.07	17,689.22	184,782.29
Repairs to Buildings and Equipment	86,618.76	101,615.46	188,234.22
Subtotal	$80,760,214.05	$78,375,119.57	$159,135,333.62
CAPITAL EXPENDITURES			
Major Road Equipment	$ 1,294,063.63	$ 761,362.15	$ 2,055,425.78
Other Equipment	196,078.80	222,947.33	419,026.13
Highway Buildings	247,171.68	245,119.03	492,290.71
Gravel Stockpiles	307,117.21	695,872.08	1,002,989.29
Supplies and Materials Inventories	16,787.90	113,228.48	130,016.38
Other Capital Expenditures	50,567.34	65,975.58	116,542.92
Subtotal	$ 2,111,786.56	$ 2,104,504.65	$ 4,216,291.21
Less Equipment Earnings	-750,561.17	-782,033.39	-1,532,594.56
Net Capital Expenditures	$ 1,361,225.39	$ 1,322,471.26	$ 2,683,696.65
Net Total Expenditures	82,121,439.44	79,697,590.83	161,819,030.27
Plus Closing Fund Balances	9,567,980.72	7,009,898.90	7,009,898.90
TOTAL EXPENDITURES AND BALANCES	$91,689,420.16	$86,707,489.73	$168,828,929.17

As shown in this table, the collection of state highway user taxes and fees has increased by approximately 25% during the ten-year period, whereas Federal funds have increased by about 422%, resulting in an overall increase in receipts of 156% during the period from 1956 to 1966.

The increase in Federal Aid is reflected in increased construction expenditures with an increase of about 247% for this purpose from 1956 to 1966. During this period, highway maintenance costs have increased by about 41%. The increase in overall expenditures amounts to about 173% during this period.

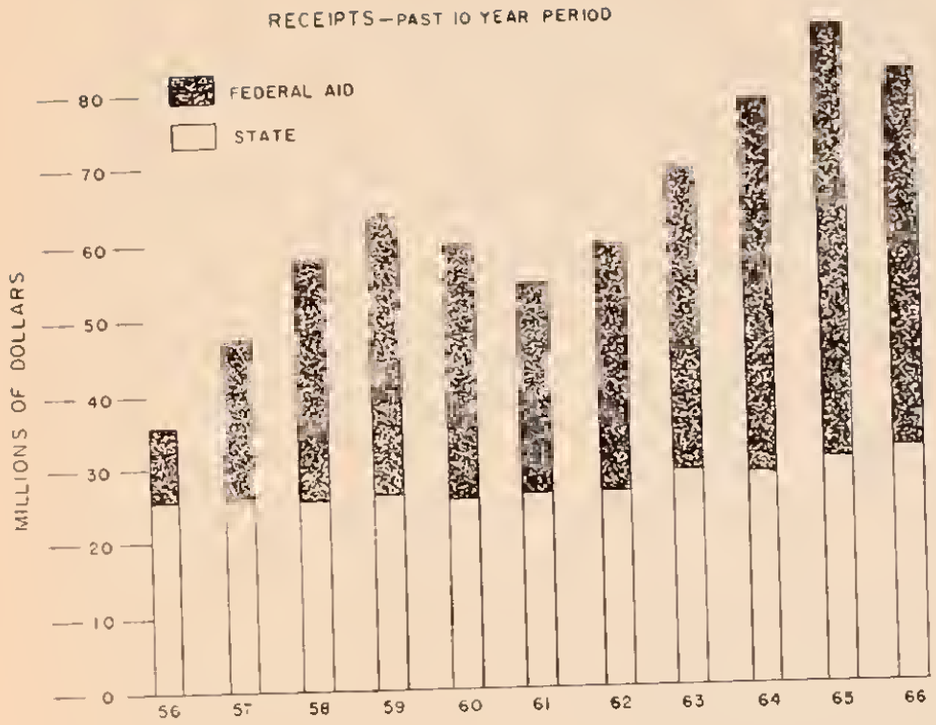
In considering the increase in motor fuel tax during this period, consideration should be given to the fact that certain developments have reduced the amount of this tax that is normally deposited in the State Highway Account. The tax on gasoline in 1956 was 7¢ per gallon, and this rate was reduced to 6¢ per gallon in 1958. Legislation was enacted during the ten-year period providing for tax exemption certificates on aviation fuel and the crediting to the accounts of the Montana Aeronautics Commission of any aviation fuel for which refunds were not claimed. This action accounts, in part, for the increase in Aviation Fund deposits from $46,559 in 1956 to $653,435 in 1965. Also, during this period, legislation was enacted allocating 1% of the gasoline tax for use in State parks where motorboating is permitted.

In summary, the period of 1956 to 1966 was characterized by greatly increased highway construction activities supported predominantly by a manifold increase in Federal Aid appropriations, particularly for the Interstate System, and a more liberal Federal participating rate in the cost of the construction of this system. In the early years of the period, the annual Federal Aid apportionments to the State Highway Commission for the Interstate System were substantially above the amounts that could be obligated because of the need to make new surveys, prepare plans, and acquire right-of-way for the new system of highways before construction contracts could be awarded. This resulted in an accumulated increase in the backlog of unmatched Federal Aid, reaching a peak of $91,000,000 in 1960. As the Interstate System construction program developed more rapidly in subsequent years, the backlog of unmatched Federal Aid was reduced to about $46,000,000 at the start of fiscal year 1966, an amount equal to about one year's apportionment to the state.

At the start of fiscal year 1966, the State Highway Commission has achieved the position where the matching of Federal Aid is about on a current basis. Recent Federal legislation, however, has provided a substantial increase in the amount of Federal Aid to be apportioned to the State to assure that the Interstate System can be completed by 1972. The decision has also been made by Congress that the entire Interstate System throughout the nation will be constructed to four-lane standards. Montana, with approximately 550 miles of two-lane Interstate highway, has the greatest amount of mileage among all the states that must be converted to four-lane standards.

To complete the Interstate System to four-lane standards by 1972, about $125,800,000 in additional Federal Aid must be apportioned to this state. At the current matching ratio, this will require about $12,100,000 in additional state matching funds above the amount provided by current revenue sources and amounts. Provision must be made for additional State revenue to assure that the State Highway Commission can provide the necessary matching funds for completion of the Interstate System by the established deadline date.

During the 1965-1966 biennium, a more detailed budgeting procedure was placed in force. Although the State Highway Commission has operated under an annual budget for many years, it has been a single budget for the entire department. The new budget procedure involves the preparation of a subsidiary budget for each division, section and field office. This budget also provides for proper accounting and charging of the costs of interdepartmental services. The final budget is prepared by a committee consisting of the State Highway Engineer, Deputy State Highway Engineer, Administrative Coordinator, Chief Accountant and Personnel Manager. It is then submitted for consideration and approval of the State Highway Commission.


RECEIPTS—PAST 10 YEAR PERIOD
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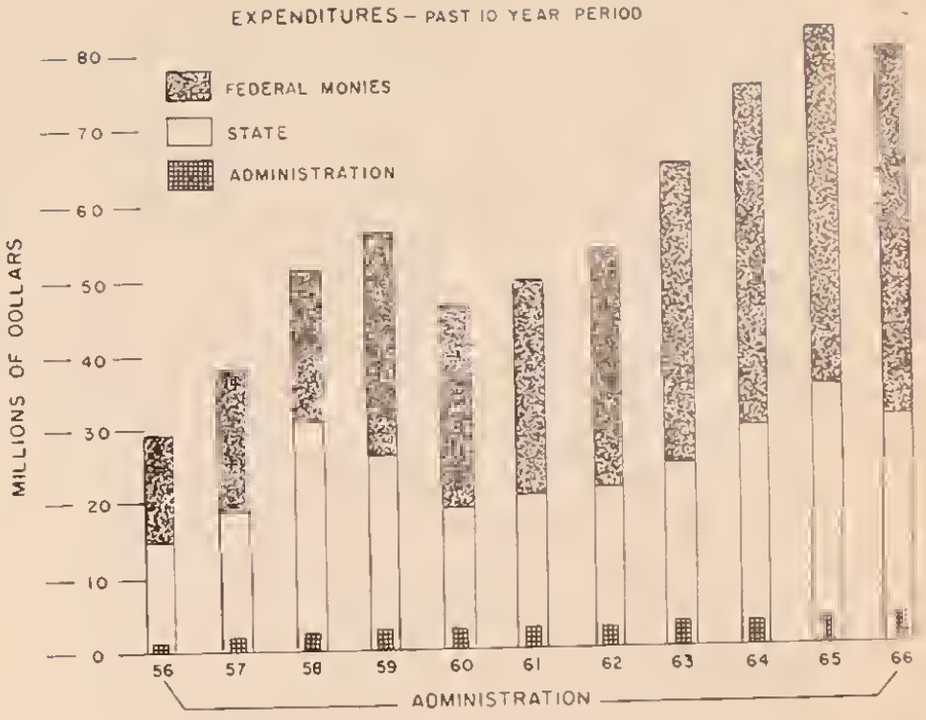
EXPENDITURES—PAST 10 YEAR PERIOD
FEDERAL MONIES
STATE
ADMINISTRATION
MILLIONS OF DOLLARS
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20
30
40
50
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ADMINISTRATION

THE HIGHWAY DOLLAR

WHERE IT CAME FROM

WHERE IT WENT

TOTAL HIGHWAY EXPENDITURE FOR BIENNIUM 161.8 MILLION

Interstate 90 Looking West Toward Butte Near Homestake Pass.

HIGHWAY MAINTENANCE REPORT

The Maintenance Engineer supervises a component of the State Highway Commission organization to which is assigned the principal duty of upkeep and restoration of all roads and bridges on the Interstate and Primary systems, and selected Secondary roads, in such a manner that they may be kept in a safe and comfortable traveling condition during all seasons of the year. Incidental to this duty, the Maintenance Engineer is responsible for:

The purchase and maintenance of all equipment used by all components of the Highway Department and the keeping of records pertaining thereto, including inventories and operation costs.

The purchase and distribution of all field supplies and materials, and the keeping of Stores' records of those items kept in stock.

The purchase, construction and repair of all department buildings.

The construction and maintenance of all radio and teletype facilities used by the department.

The collection and dissemination of road information as affected by construction and weather conditions.

The Civil Defense Section coordinates all maintenance employees in regard to major emergencies. The state is divided into five districts, which are further divided into maintenance divisions. There are eleven maintenance divisions in which division offices, shops, and storage facilities are maintained. Division Engineers, under the general supervision of five District Engineers, are responsible for the maintenance of the Primary system of roads in their respective areas.

The average number of employees in the eleven maintenance divisions varies from approximately forty-five in the smaller divisions to ninety-five in the larger divisions. Mileage of road maintained by the maintenance divisions varies from 480 to 790. See page 43. Division mileage is divided into sections, thirty to forty miles in length, each of which is manned by a sectionman and one or more helpers who perform the necessary general maintenance operations, such as patching, weed removal, roadside clean-up, ditch cleaning, drainage maintenance of signs, snow removal and sanding. Special maintenance and betterment work, such as leveling courses, seal coating, major slide removal and major washout repair, is accomplished by combining two or more section crews, augmented by division headquarters' personnel. Division headquarters' personnel, manning reserve snow removal equipment, also assist section crews on snow removal operations when required.

Worthy of comment is the increase of 490 miles of highway maintained since the 1962-64 biennial report. A breakdown of the 490 miles reveals 27 miles of Secondary roads, 36 miles of 4-lane Primary and the balance of 427 miles is a direct increase caused by the Interstate system: 70 miles of new frontage roads, 84 miles of ramp roads, 137 miles of old Primary frontage roads and 136 miles of 4-lane Interstate. Concerning the new 4-lane Interstate, it has been determined that it costs $861.00 more per mile to maintain a 4-lane Interstate highway than the average for all systems.

The Division Engineers supervise and administer all maintenance work, stores, and equipment pertaining thereto, and the operations of shop and storage facilities in each division. Division offices and shops are located at Missoula, Kalispell, Butte, Bozeman, Great Falls, Havre, Glendive, Wolf Point, Billings, Miles City and Lewistown. Storage facilities for section equipment are located at strategic places throughout the state.

In addition to maintaining shops in each division, a state shop and equipment depot is maintained in Helena. This depot maintains a garage and services Helena headquarter's cars, overhauls and services striping crew equipment, rebuilds motors for exchange in motorized field equipment, maintains stores of small tools, makes shipments to field as required and fabricates standard signs for use throughout the state.

The state shop personnel process all requisitions for equipment, supplies and materials to the State Controller, where purchase orders are prepared and materials bought. They process all invoices pertaining to the above for payment, and supervise the maintenance of stock records, equipment inventories, small tool inventories, and keep an operating cost record of all equipment.

The radio and teletype section is supervised by a Communications Engineer under the direction of the Maintenance Engineer. The state communications system is well established and provides rapid and direct contact between Helena headquarters and the several divisions, between divisions, between division offices and field forces, and between radio equipped vehicles.

Maintenance expenditures, by items, for the biennium are shown on Page 41. A brief explanation of the items follows:

ITEM 1. GENERAL MAINTENANCE. General maintenance is that phase of our operations covering routine maintenance work, such as oil mat patching, weed removal, drainage, signing, guard rail repair, snow fence erection and traffic services.

ITEMS 2 and 3. SNOW REMOVAL AND SANDING. These items are general maintenance items whose costs are kept separately.

ITEM 4. SPECIAL MAINTENANCE. Special maintenance consists of maintenance work involving unusual expense and sometimes increased forces and additional equipment. Money for this work is allocated to divisions as required.

ITEM 5. BETTERMENTS. Betterment work consists of additions to original construction, such as gravel base, increased thickness of oil mat, guard rail, improved drainage structures, etc. Allocation of monies for this work is made to divisions as required.

Expenditures for general maintenance, special maintenance, and betterments by work numbers are shown on page 44.

ITEMS 6 to 11 represent undistributed overhead expenses. These items are self explanatory. It will be noted that the total of items 1 through 11 is the cost of road maintenance only, including all overhead. A statement showing total cost per mile for general maintenance, special maintenance and betterments is shown on page 45.

ITEMS 12 to 15. STORE ACCOUNTS. The amounts shown opposite these respective accounts reflect the increase or decrease in the stores for the period noted.

ITEM 16. EQUIPMENT RENTAL. The amount shown for this item is a reconciliation of the equipment account. State-owned equipment used on a construction project by engineering forces, or on a particular section of highway by maintenance forces, is charged to the job at an established hourly or daily rental rate. The total rentals collected on all equipment are calculated to pay the upkeep costs and cost of new equipment purchased during the fiscal year. Rentals collected in excess of repair costs, plus purchases, establishes a credit balance in this account. If rentals collected are less than repair costs plus purchases, the resultant debit balance represents a cash expenditure.

ITEMS 16 to 22 represent cash expenditures for additions, such as buildings, to present facilities, or new facilities constructed during the biennium.

ITEM 23 is included in maintenance operational costs, not chargeable to maintenance of primary roads.

ITEM 24 covers overhead charges collected on Accounts Receivable.

Salary schedules for field maintenance employees, effective during the biennium, are shown on page 42.

The following provisions are applicable and supplementary to the wage schedules shown on page 40.

1. Designated work week for hourly employees will be Monday through Friday except where type of duty, such as janitor work, servicemen, watchmen, etc., requires Saturday and Sunday work, in which case the supervisor will designate the work week and employee will be given another day off in lieu of Saturday or Sunday.

2. All employees are on a monthly salary. Eight hours shall constitute a day's work and forty hours shall constitute a week's work for hourly employees and all work performed in excess of eight hours per day, or forty hours per week, or on days other than the designated work week, will be paid at the rate of time and one-half.

3. Employees shall be paid eight hours at straight time for the following holidays not worked: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and Christmas Day. When any of the above holidays fall on Sunday, the following Monday shall be considered as the holiday. Employees required to work on these days shall be paid at the rate of time plus time and one-half.

4. Supervising personnel will be expected to work such extra time over and above the 8-hour day and/or 40-hour week as may be required to discharge their responsibilities.

5. Employees shall be classified strictly in accordance with the work they are performing, provided however, that employees temporarily assigned to a higher rated position for any part of a 4-hour morning or afternoon period will receive the higher rate of pay during that period.

   Each maintenance employee will be classified in a title, e.g. Laborer, and group, e.g. Maintenanceman 1, which best represents the work he performs the majority of the time. An employee may be temporarily assigned to do any work within a group without charge in group or title. Where an employee is permanently reassigned to a different kind of work within the same group, his title but not his group will be changed as appropriate. An employee may be assigned to work of either a higher or a lower classification without a change in title or salary where such work is temporary or where the performance of such work is incidental to the performance of the employee's primary job. Where there is a permanent change in an employee's primary duties, he will be reclassified as appropriate. Where, in connection with road oiling or other similar seasonal operations, an employee will be required to perform work of a lower or higher classification the majority of the time for a period of two months or more, he will be temporarily reclassified as appropriate.

6. Statutory expenses will be paid men engaged in moving operations, equipment transfer (when not assigned to traveling crews), emergency snow removal, washouts, or other EMERGENCY assignments away from regular headquarters for short durations. This expense will be paid by claim.

7. Travel time when performed beyond the normal eight (8) hour shift will be paid at six (6) cents per mile.

8. Conditions other than noted above will conform with signed union agreements in effect during the biennium.

CLASSIFICATION AND WAGE SCHEDULE FOR MAINTENANCE EMPLOYEES

(Effective January 16, 1966)

Occ. Code No.	Group	Title	Salary Grade	Salary
		MAINTENANCE SUPERVISOR I		
311		Sectionman	18	$625.00
323		Carpenter Foreman		
324		Working Shop Foreman		
		MAINTENANCEMAN V		
326		Mechanic	17	$600.00
325		Machinist		
327		Painter, Journeyman		
328		Painter, Sign		
321		Carpenter, Journeyman		
332		Shovel Operator		
346		Motor Patrol Operator		
341		Tractor Operator—Crawler Type		
334		Paint Gun Operator		
		MAINTENANCEMAN IV		
333		Hot Plant Operator	16	$575.00
330		Core Drill Operator		
355		Powderman		
347		Steam Clean Operator		
319		Powder Chip Box Operator		
348		Roller Operator		
345		Loader Operator		
358		Pulvi-Mixer Operator		
338		Athey Loader Operator		
		MAINTENANCEMAN III		
340		Broom Operator	15	$550.00
344		Distributor Driver—Over 1,000 Gal.		
344		Leverman—Over 1,000 Gal.		
354		Mower Operator		
381		Truck Driver—5 Ton and over		
363		Jackhammer Operator		
318		Sign Painter, Apprentice		

Occ. Code No.	Group	Title	Salary Grade	Salary
		MAINTENANCEMAN II		
339		Weed Spray Operator	14	$525.00
352		Leverman—1,000 Gal. or less		
349		Retort Operator—Tank Car Heater		
369		Auger Type Drill Operator		
366		Mechanic Helper		
312		Stockman		
382		Truck Driver—3 to under 5 ton		
383		*Truck Driver—1½ to under 3 Ton		
		*Over six (6) months employment		
		MAINTENANCEMAN I		
350		Compressor Operator	13	$510.00
351		Concrete Mixer Operator		
356		Spreader Box Operator		
368		Serviceman		
372		Combination Man		
378		Tractor Operator—Farm Type		
370		Laborer		
385		*Truck Driver—1½ to under 3 Ton		
		*First six (6) months employment		

The operator of any equipment listed shall include any attachments thereto.

EQUIVALENT HOURLY RATES

Based on 2,080 hours per year

Salary Grade	Rate Per Mo.	Rate Per Hour Regular	One and One-Half	Double Time	Two and One-Half
13	$510.00	$2.94	$4.41	$5.88	$7.36
14	$525.00	$3.03	$4.54	$6.06	$7.57
15	$550.00	$3.17	$4.76	$6.35	$7.93
16	$575.00	$3.32	$4.98	$6.63	$8.29
17	$600.00	$3.46	$5.19	$6.92	$8.65

MAINTENANCE EXPENDITURES

		F.Y. 1965	F.Y. 1966	BIENNIUM
1.	General Maintenance All Items except 2 and 3	$ 4,654,089.19	$ 5,355,142.62	$10,009,231.81
2.	Snow Removal	1,189,784.74	845,288.13	2,035,072.87
3.	Sanding	855,887.64	803,780.78	1,659,668.42
	SUB-TOTAL GEN. MAINT. LESS OVERHEAD	$ 6,699,761.57	$ 7,004,211.53	$13,703,973.10
4.	SPECIAL MAINTENANCE—LESS OVERHEAD	$ 307,480.04	$ 269,163.98	$ 576,644.02
5.	BETTERMENTS—LESS OVERHEAD	$ 995,680.67	$ 971,046.01	$ 1,966,726.68
	OVERHEAD CHARGES			
6.	Supervision	$ 346,932.28	$ 584,815.30	$ 931,747.58
7.	Administration—Helena Shop	80,136.68	31,738.90	111,875.58
8.	Upkeep and repair of Motor Fuel—Road Oil Facilities	3,261.61	2,903.91	6,165.52
9.	Upkeep and repair of Maintenance Buildings	38,530.67	50,429.69	88,960.36
10.	Upkeep and repair of Shop Equipment	7,850.95	5,944.19	13,795.14
11.	Upkeep and repair of Radio Facilities	76,249.19	88,287.20	164,536.39
	SUB-TOTAL—OVERHEAD CHARGES	$ 552,961.38	$ 764,119.19	$ 1,317,080.57
	SUB-TOTAL—ROAD MAINTENANCE ONLY INCL. OVERHEAD	$ 8,555,883.66	$ 9,008,540.71	$17,564,424.37
	STORES ACCOUNTS—INCREASE OR DECREASE			
12.	Crushed Gravel	$ 307,037.21	$ 701,018.57	$ 1,008,055.78
13.	District Stores	70,738.39	6,974.34	77,712.73
14.	Equipment Stores	73,627.40 Cr.	63,147.14	10,480.26 Cr.
15.	Helena Stores	30,050.10	18,572.02 Cr.	11,478.08
	SUB-TOTAL STORES INCREASE OR DECREASE	$ 334,198.30	$ 752,568.03	$ 1,086,766.33
16.	EQUIPMENT ACCOUNT			
	Rental Earned	$ 2,444,453.28 Cr.	$ 2,979,866.83 Cr.	$ 5,424,320.11 Cr.
	Repair Costs	1,693,892.11	2,197,833.44	3,891,725.55
	Purchases	1,294,063.63	864,423.01	2,158,486.64
	SUB-TOTAL—RENTAL EXCESS OR DEFICIT	$ 543,502.46	$ 82,389.62	$ 625,892.08
	CAPITAL ASSET BUILDING ACCOUNTS			
17.	New Buildings, Storage, Weighing Stations, Etc.	$ 230,685.99	$ 245,119.03	$ 475,805.02
18.	New Fuel Oil Facilities	3,751.56	8,439.84	12,191.40
19.	New Road Oil Facilities	12,734.13	6,038.75	18,772.88
20.	New Shop Tools	18,049.91	24,039.62	42,089.53
21.	New F. M. Radio Stations	38,383.10	54,030.27	92,413.37
22.	Roadside Rest Areas	118,209.18	93,792.66	212,001.84
	SUB-TOTAL—CAPITAL ASSET BUILDING	$ 421,813.87	$ 431,460.17	$ 853,274.04
	MISCELLANEOUS			
23.	City and County Non-Reimbursable	$ 4,781.53	$ 4,970.73	$ 9,752.26
24.	Miscellaneous Refunds Due	4,785.00 Cr.	5,305.14 Cr.	10,090.14 Cr
	SUB-TOTAL MISCELLANEOUS	$ 3.47 Cr.	$ 334.41 Cr	$ 337.88 Cr
	TOTAL CASH OUTLAY—MAINTENANCE EXPENDITURES	$ 9,855,394.82	$10,274,624.12	$20,130,018.94

MAINTENANCE EXPENDITURES BY WORK NUMBERS

WORK No.	WORK DESCRIPTION	F.Y. 1965	F.Y. 1966	BIENNIUM
1.	Dirt Surfaces	$ 11,924.65	$ 13,368.81	$ 25,293.46
2.	Gravel Surfaces	8,028.38	15,327.34	23,355.72
3.	Concrete Surfaces	216.76	8,353.85	8,570.61
4.	Oiled Surfaces	2,798,194.61	3,130,831.52	5,929,026.13
5.	Heat or Plane Oil Surfaces	1,826.49	175.95	2,002.44
10.	Brush Cutting and Burning	49,848.92	87,128.91	136,977.83
11.	Shoulders and Approaches	179,825.44	216,324.27	396,149.71
12.	Slopes, Ditches and Small Drainage	419,393.06	448,337.60	867,730.66
13.	Sidewalk and Foot Paths	383.75	1,567.97	1,951.72
14.	R/W and Station Markers	1,834.02	1,774.55	3,608.57
15.	R/W Fence	15,631.98	14,140.42	29,772.40
16.	Slide and Washout Repairs	121,247.68	110,316.21	231,563.89
17.	Weed Control Chemical	90,400.71	122,775.42	213,176.13
18.	Weed Control, Mowing and Burning	237,549.30	245,061.68	482,610.98
19.	Seeding	14,652.18	9,828.91	24,481.09
20.	Aerial or Ground Photography	25.91	50.26	76.17
21.	Minor Structures	49,938.96	17,875.85	67,814.81
22.	Bridges over 20 feet	65,417.68	94,878.78	160,296.46
23.	Underpasses	39,792.47	15,109.15	54,901.62
24.	Riprap, Jetties, Walls, etc.	29,122.95	49,176.44	78,299.39
25.	Concrete Curbings	2,634.80	5,260.58	7,895.38
26.	Bridge Painting	58,634.29	40,945.75	99,580.04
30.	Patrolling Roads	.....	147,408.40	147,408.40
31.	Guard Rail and Guide Posts	80,133.31	62,287.54	142,420.85
32.	Signs	272,531.58	290,727.01	563,258.59
33.	Signals	6,477.54	10,201.72	16,679.26
34.	Historic Markers	8,198.26	4,564.70	12,762.96
35.	Traffic Lines	389.814.96	487,223.67	877,038.63
36.	Roadside Tables and Campsites	24,093.99	23,316.62	47,410.61
37.	Detours	1,118.24	465.69	1,583.93
38.	Lights and Lighting	8,291.77	10,446.08	18,737.85
39.	Delinator Replacements	17,603.69	33,182.61	50,786.30
40.	Sign Vandalism	127.48	14,210.52	14,338.00
41.	Snow Removal	1,271,714.21	923,632.65	2,195,346.86
42.	Snow Fence	74,535.80	84,239.77	158,775.57
43.	Sanding Icy Surfaces	874,360.77	838,912.88	1,713,273.65
44.	Chemical Treatment of Ice	40,470.66	39,365.35	79,836.01
45.	Beautification Projects	4,002.29	8,819.13	12,821.42
46.	Littering of Highways	60,247.51	89,904.24	150,151.75
47.	Other Traffic Services	5,137.63	6,842.82	11,980.45
48.	Rest Areas	8,169.04	21,808.72	29,977.76
49.	Comfort Stations	5,747.35	27,732.69	33,480.04
51.	Rental, Light, Heat, Power, Telephone	85,671.77	84,118.72	169,790.49
52.	Heat for Road Oil Tanks	38,909.20	38,949.19	77,858.39
53.	Fence Erection and Repair	1,909.19	9,125.25	11,034.44
54.	Water Wells	.....	843.95	843.95
55.	Insurance Premiums	.....	10.00	10.00
56.	Improvement Tax	208.74	9.11	217.85
58.	Maintenance of Yard	23,862.15	42,110.86	65,973.01
59.	Patronage Dividends	107.29 Cr.	.....	107.29 Cr.
60.	Grading and Gravelling	268.87	52.31	321.18
70.	Oiling, Plant Mix, Road Mix	499 202.51	575,061.15	1,074,263.66
80.	Oiling—Penetration	127,712.23	4,963.28	132,675.51
90.	Oiling—Sealing	428,945.22	479,393.86	908,339.08
	TOTALS	$ 8,555,883.66	$ 9,008,540.71	$17,564,424.37

SUMMARY OF DIRECT MAINTENANCE COSTS BY DIVISION

Division	FISCAL YEAR 1965 Miles Maintained	Total Cost	Cost Per Mile	FISCAL YEAR 1966 Miles Maintained	Total Cost	Cost Per Mile
Missoula	689	$1,246,734.58	$1,809.48	697	$1,301,622.20	$1,867.46
Kalispell	623	1,006,580.45	1,615.70	623	1,177,030.68	1,889.29
Butte	790	1,098,263.66	1,390.21	781	1,090,585.89	1,396.40
Bozeman	559	601,613.80	1,076.23	559	593,037.06	1,060.89
Great Falls	649	927,990.84	1,429.88	651	1,039,964.69	1,597.49
Havre	480	608,266.26	1,267.22	480	681,550.99	1,419.90
Glendive	589	547,840.67	930.12	587	564,902.27	962.35
Wolf Point	559	585,590.87	1,047.57	559	520,085.44	930.38
Miles City	513	547,233.98	1,066.73	513	549,290.70	1,070.74
Bilings	603	762,319.46	1,264.21	603	812,819.40	1,347.96
Lewistown	697	623,449.09	894.48	697	677,651.39	972.24
TOTALS	6,751	$8,555,883.66	$1,267.35	6,750	$9,008,540.71	$1,334.60

ADVERTISING DEPARTMENT

This Department makes a regular biennial report to the Governor and the Legislative Assembly and it is being submitted under separate cover.